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ABSTRACT

The ten chapters in this collection are intended to be a starting point for those interested in teaching children and adults to read more effectively. Each chapter treats an age, school level, or special population and provides three kinds of information: the current state of reading instruction for that group, what it should be, and recommendations for change. The individual chapters discuss preelementary school reading; reading instruction in the early elementary years; reading in the intermediate/middle school; secondary school reading programs; college and adult reading; adult functional literacy; literacy for special populations, specifically non-English speakers; reading handicaps; reading and the handicapped learner; and reading and the gifted. (FL)

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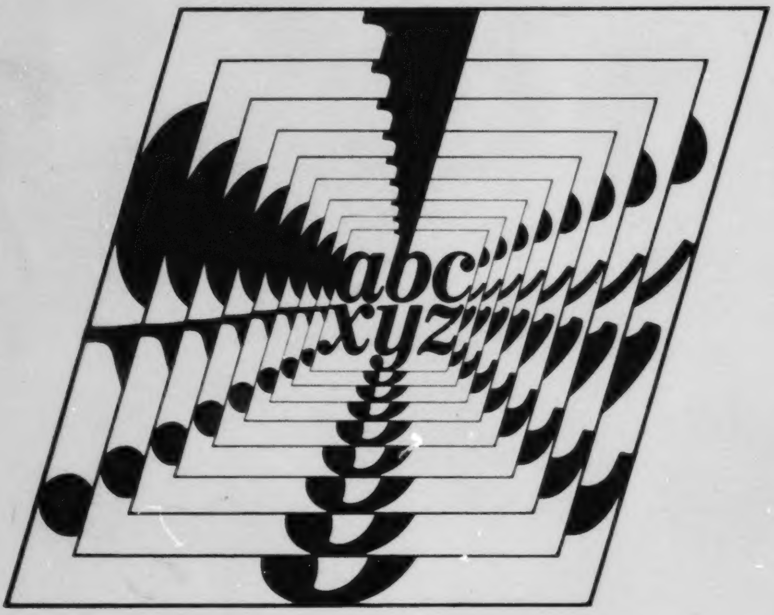
Projections for Reading: Preschool Through Adulthood



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Mary F. Berry, Assistant Secretary for Education

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Ernest L. Boyer, Commissioner

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Foreword

This collection of position papers is designed to instruct and enlighten professionals whose interest lies in upgrading reading skills. The authors of the 10 papers, covering preelementary students through adulthood, are experts in reading. Each paper has been constructed so that the reader will understand where we are today with a particular level of reading instruction, where we ought to be, and the recommendations for change.

This collection is not meant to be prescriptive, and readers are encouraged to use the individual articles as a starting place for continued study and action. The "Introduction" by Ralph Staiger provides detailed information about the development and usefulness of these papers.

The names of the editors and planners follow this foreword. Each played a significant part in developing this manuscript. I wish to pay tribute to the professionalism and talent of the authors who made their ideas available to those interested in helping to improve the reading skills of the Nation's population.

GILBERT B. SCHIFFMAN
Director, Right To Read

Editors

Becky Calkins, *Project Coordinator*
Education Specialist, Bureau of Education for the Handicapped
U.S. Office of Education
Washington, D.C.

Florence Hesser
Director, Reading Center
George Washington University
Washington, D.C.

Gilbert Schiffman
Director, Right To Read
U.S. Office of Education
Washington, D.C.

Ralph Staiger
Executive Director
International Reading Association
Newark, Del.

Planners

John Borsa
Assistant Professor
University of Missouri
St. Louis, Mo.

Jane Larsh
State Right To Read Director
State Department of Education
Denver, Colo.

Mary Purnell
State Right To Read Director
State Department of Education
Raleigh, N.C.

John Shelton
Former State Right To Read Director
State Department of Education
Montgomery, Ala.

Charles Shipman
Former Acting Director
Right To Read
U.S. Office of Education
Washington, D.C.

Program Officer

John McCarthy,
National Right To Read Office
Washington, D.C.

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CHAPTER I

Introduction

by Ralph C. Staiger
Executive Director
International Reading Association
Newark, Del.

Teaching children and adults to read more effectively is what this book is all about. Each of the 10 following chapters treats an age or school level, or a special population such as gifted children or non-academic adults, and provides 3 kinds of information. Each specialist chosen to prepare a chapter was asked to present an opinion about, first, where we are today; second, where we should strive to be in the future; and, third, how we might get to that point.

The collection is conceived as a starting point for the consideration of reading improvement, and is not designed to provide a detailed plan for a classroom, a school, a school district, or a State educational unit; nor is it designed to be a pattern for teacher-education classes.

Throughout the group discussions which preceded the actual writing, it was apparent that each author was concerned vitally about reading improvement, throughout the lifetime of an individual. They recognized, with Richard Hooker, as quoted by Samuel Johnson in the preface to the English dictionary, "Change is not made without inconvenience, even from worse to better."

Right To Read

The Right To Read Effort has, since its inception in September 1969 by the late U.S. Commissioner of Education James E. Allen, Jr., recognized that the improvement of reading will be a change made not without inconvenience, and that it is not a task for the teacher alone. In addition to the educational community, Commissioner Allen called upon the committed participation of the Congress; State and local political leaders and legislative bodies, business, industry, and labor; civic and community groups; publishers; advertising organizations; television, radio, and the press; research and scientific organizations; foundations; the entertainment industry; and the sports world to make a reality of the "Right To Read." This cooperative action of discrete agencies, resulting in a greater total effect than the sum of the independent actions and called the synergistic approach, has remained a part of Right To Read ever since.

Commissioner Allen provided no specific directions for the effort to take. He warned against becoming bogged down in the methodology of teaching reading, and reminded us that the goal was what we must be concerned about.

The lack of specific recommendations by Commissioner Allen was both a weakness and a strength. It placed responsibility in many places, and so caused some confusion when States were asked by him to "consider how this goal can be achieved, to assemble resources, to plan, and to report back to me. . . ." [1] In the long run, the strength of Allen's approach became obvious. In a day of high Federal spending, the impetus provided throughout the country by the Right To Read for relatively few Federal dollars was remarkable. Its staying power was also unusual, for even though Commissioner Allen was dismissed by President Nixon and subsequently died in an airplane crash, the effort continued.

A succession of directors and acting directors, together with the confused planning situation, made for a rocky beginning of the Right To Read Office in Washington, D.C. Julia Hamblet, Louis Mendez, and finally, Ruth Love Holloway were directors during the first years. Gradually, concern for adult illiterates, mentioned in Allen's speech but not emphasized, became a more important part of the effort. A National Reading Center in Washington was established but was discontinued. The National Reading Council suffered the same fate, as the Right To Read came closer to being authorized by law. As a priority activity of several Commissioners, the Right To Read had access to some funds, and also a "hunting license" for appropriations made to other agencies for reading-related activities. It was still a poor relation, however.

With the passage of title VII of the Education Amendments of 1974, the Right To Read finally had legislative authorization and was no longer required to beg for funds from other agencies.

In this law, the National Reading Improvement Program (Public Law 94–194), the Congress authorized $394,700,000 through 1978. In 1976, only $23 million was actually appropriated. This publication was made possible by the National Impact provisions of the new law.

Projections for Reading

In 1976, a series of position papers on reading, covering the preschool through adult levels, was conceived by Acting Director Charles Shipman as a focal point for discussion by the various agencies involved in Right To Read activities. An editing and coordinating committee, a group of writers, and a dissemination committee were invited to participate. The editing and coordinating committee met for a preliminary discussion during International Literary Day, September 8, 1976, and all three groups met for specific planning later that month. Remarkably, the members of the group were in agreement about many aspects of the task. The dissemination committee, comprised of State and local education agency representatives, was skeptical at first about the contributions which the specialists might make, but, as possible outlines were presented and discussed, became enthusiastic about the project.

Next came the writing of a first draft, discussion and editing to coordinate the contributions. Perfect meshing of all the papers in terms of coverage and style was a goal, but not an absolute requirement. Each author was presenting a personal position, the result of a lifetime of concern with the subject, and parallel organization and bibliographical style were considered secondary to clear exposition of a point of view. One author believed that his chapter should begin with where we should be, followed by where we are and how we should work toward the goal. He was encouraged to organize his chapter as he believed it would have the greatest value.

The limitations of time and space have made it impossible for everything considered important to be included. The reader will find areas which can be expanded, and is expected to do so in his or her mind. The most important contribution which this book can make is to provide ammunition for changes in practice.

In all probability some readers will not read all parts of this book, but will concentrate on the chapters of greatest interest to them. This should be easy to do, for each chapter was planned as a unit. The second through fifth chapters deal successively with the reading aspects of school populations in order of age: Preschool, early elementary school, middle grades, and high school. Chapters six and seven treat adults in school and out of school. Chapter eight concentrates on the language aspects of special reading populations, while the severely disabled reader is the focus of the ninth chapter. The handicapped learner and the gifted reader are the subjects of the two final chapters.

The dissemination committee projected uses of the position papers by State education agencies, by local education agencies, and by teacher-preparation institutions as well as by institutions and organizations in the private sector. In addition, the papers will be useful to the individual who just happens upon this collection.

Possible Uses by State Education Agencies (*SEA's*)

State education agency task forces on reading instruction will find the position papers useful as background as resources and programs are coordinated. It is especially important for these task forces to be cognizant of the sequential program for reading instruction for the various age levels from preschool through adult and of the special populations.

Each component of the State-supported program in reading can gain direction and become a part of a coordinated program through the utilization of the position papers rather than being an isolated effort.

The concepts in the position papers should be considered with care by each member of a State advisory council on reading when that council formulates the criteria of excellence for reading in the State. Criteria of excellence will establish the major objectives for meeting the reading needs of the citizens of the State from the preschool through the adult levels. After the establishment of these criteria a State plan for meeting the reading needs within the State can be developed in extensive detail. Again, the position papers should provide help and direction in the development of that State plan so that continuity is maintained and curricular effectiveness is achieved.

As local Right To Read directors are trained, the ideas in the position papers can be a significant part of that overall training. The local directors should become aware of the major emphasis of each of the papers, and should be cognizant of the continuity provided throughout the papers. Such understanding will be essential if the local director is to perform effectively at the district level in providing leadership for the planning and implementation of staff development activities.

When technical assistance is provided through the State leadership and training programs to the local districts, technical assistants should be well acquainted with the contents of the position papers. This understanding is essential because technical assistance should support the efforts of the trained local Right To Read director in program planning and staff development efforts.

Whether the technical assistance is provided by the State-level staff, local district-level personnel or faculty from teacher-preparation institutions, the need for the technical assistants to understand the content of the position papers remains constant.

Several other possibilities are evident. These include:

(a) Using the concepts expressed in the papers to develop curricular materials for local districts.

(b) Using the papers for other programs such as Adult Basic Education and Special Education, to assist in developing effective programs for designated populations.

(c) Using the position papers for working with selected State legislators to help them draft appropriate legislation relating to reading.

(d) Using the papers for working with appropriate private-sector agencies to encourage and facilitate their effective participation in literary efforts.

Possible Uses by Local Education Agencies (*LEA's*)

The administrators and instructional staff having overall responsibility for curriculum development and implementation at the district (LEA) level should be acquainted with the basic purposes and the content of the series of position papers. It is at this level that the scope of the reading program will be determined—whether the concentration will be at the early elementary level, through all elementary grades, or whether it will be a fully coordinated, continuous program from preschool through grade 12 and extending to the adult level.

All teachers have a responsibility for reading instruction. They should become acquainted with the contents of those position papers which relate to their needs. The position papers can become a part of the staff development program. When a major change is desired in an instructional program within a school building or at the districtwide level, there is usually a need to achieve an awareness and understanding of the desired change on the part of the instructional, administrative, and service staff. The effectiveness of the new program is almost solely determined by how well the staff understands and accepts the proposed program and how it can be successfully implemented.

Possible Uses by Teacher-Education Institutions

Teacher-preparation institutions are one of the three major educational agencies involved in a coordinated effort with the State education agency and the local school districts. The position papers can afford a common base for the implementation of synergistic effort.

The laboratory experience of undergraduate programs for preparing teachers are probably the most meaningful and beneficial components of the preparation program. It is appropriate that the students in training have, in addition to skills in diagnosis and prescription, a clear understanding of the overall sequential program in reading for the various grade levels.

One of the major tasks in the development of a synergistic approach in an area such as reading is the need for extensive staff development programs for the teachers now in service. If the local districts are to participate in such a coordinated program, then the teachers and administrators of the local schools must be informed and must be assisted in the development of new concepts and skills for program implementation.

A significant part of that staff development responsibility should be assumed by the teacher-preparation programs through graduate programs in reading, and workshops and seminars conducted to meet the identified needs of the personnel involved.

Again, the position papers may well serve as the basis for such staff development activities. The programs leading to specialized certification in reading, such as that for "Reading Teacher," "Supervisor," or "Director of Reading," can incorporate the position paper concepts and procedures as essential components of the program.

Teacher-education institutions often provide technical assistance to local school districts as a part of a leadership and training program by utilizing qualified educational planners and reading specialists. This provides an exchange of information beneficial to faculty and teachers alike.

Reference

[1] Allen, James E. "The Right To Read—Target for the 70's," *Journal of Reading*, vol. XIII, no. 2 (November 1969), pp. 95–101. An address given by Commissioner Allen before the 1969 Annual Convention of the National Association of State Boards of Education, Los Angeles, Calif., Sept. 23, 1969.

CHAPTER II—SUMMARY

The author describes the evolution of reading instruction at the preelementary level, its relationships to early childhood development, and the current issues surrounding reading instruction for pre-first-grade children.

A presentation of what research tells us about early childhood development and reading instruction follows and a series of precepts about the way young children learn are offered.

This paper details some recommendations related to preelementary reading instruction and specifically discusses the parent's role as the first and most important teacher of children. A strong plea is made to provide teachers with better preparation in reading and language arts teaching methods in preelementary settings.

The author concludes with instructional strategies that foster the integration of the language arts and the recognition of individual differences.

CHAPTER II

Preelementary School Reading

by Dorothy Strickland
Chairperson, Early Childhood Department
Kean College
Union, N.J.

To some, it may seem strange to include preelementary concerns in a volume devoted to reading instruction. As one begins to explore the issues concerning reading and the very young child, however, it becomes quite clear that a basic understanding of this period of development is important for teachers and parents regardless of the age or grade level at which their attention is primarily focused.

Where We Are Now: Historical Perspectives

The early years are a time of beginnings—a time for building foundations. The strength or the weakness of these foundations can have irrevocable effects upon the child's later learning. Indeed, the questions and concerns surrounding reading instruction for prefirst graders are among the most controversial issues in reading today.

Factors influencing the development of nursery schools and kindergartens in the United States.—When we speak about preelementary school programs, we are referring to any type of "schooling" that precedes first grade. Traditionally, this would include nursery schools, day care programs, and kindergartens. More recently, we would add programs such as Head Start and a rapidly emerging number of infant care centers. Historically, preelementary programs stressed the physical, emotional, and social growth of the child with less emphasis on cognitive concerns, probably because the nursery school movement first flourished in the United States during the 1920's during the same period in which the Progressive Education Movement took hold. Educators interested in young children, generally placed less importance on the cognitive aspects of the curriculum. Even the prestigious nursery schools, which were established as research centers at major universities, stressed the study of the physical, social, and emotional development of young children. (Durkin, p. 13.)

The Great Depression of the 1930's led to the emergence of numerous day care centers. These were largely custodial in nature, providing basic child care needs for the young children of working parents or those whose parents were too poor to provide adequate care themselves. As with the nursery schools of this era, the stated goals for day care programs were described largely in terms of the child's physical, social, and emotional development.

With the advent of World War II came a resurgence of day care centers. Thousands of mothers went to work in factories to further the war effort. Again, the child care emphasis concentrated on providing basic custodial services. Teachers were urged to assume the role of mother surrogate and basic physical needs were given priority.

Kindergarten education had been imported from Germany in the mid-1800's before the nursery and day care movement emerged in the United States. Although concerned with preparation for later schooling, the goals of kindergarten teachers have traditionally been similar to those already described for nursery schools. Kindergarten education grew rapidly in the United States and although influenced periodically by the pressures of the times, remained relatively unchanged until the 1960's.

In the United States, the early 1960's witnessed a revival of early childhood education for many of the same reasons that early childhood programs had developed in the past. Conditions of the times had created educationally impoverished children and produced the recognition of serious social problems. Educators proposed that these children lacked the experience with cognitive manipulations that more affluent children seemed to benefit from. They suggested that such children be placed in early intervention programs which would help compensate for their relatively less advantageous beginnings. Thus, Government-funded projects such as Head Start were instituted in which "deprived" or "disadvantaged" children were given opportunities to develop cognitive skills often with the intent of raising their IQ scores. Research and innovation were stimulated during this period, as educators and the general public took a new look at the possibilities for early childhood education. Although the peak of this activity has passed, it created major changes in early childhood education. Those related to reading will be discussed under current trends.

The Role of Reading in Preelementary Settings.—Traditionally, prereading- or reading-readiness instruction has been concentrated in kindergarten and early first grade. During the 1930's reading-readiness instruction was largely influenced by the work of Gesell (1940), who described childhood as a period of natural movement from one discernible stage to another. Children would be "ready" to learn new skills when genetically determined growth developments allowed new learning to take place, not when they had mastered prerequisites. Thus, reading was generally postponed as children became "ready" through the passage of time.

During the 1950's, researchers began to look more closely at the environmental influences on learning. The work of Bruner (1960) and Hunt (1961) were given particularly wide attention. Researchers began to view reading in terms of the essential features of its content. Each new concept learned by the child would prepare him or her for more and more complex learnings. Readiness for reading was not only the result of genetic and maturational influences, but a product of the child's prior experiences and learnings as well. These experiences and learnings would be provided by the home as well as the school.

In 1959, Ausubel (p. 246) offered a concept of readiness for learning that helped to broaden the view of reading readiness from the narrow concept of something distinct and separate from formal reading instruction. Ausubel viewed readiness as the child's own capacity to deal with a given task. It is obvious that readiness is a highly individual matter that cannot be assigned to a fixed chronological age. It is an ongoing process rather than merely a preparatory period of "tooling up" for the real thing. Thus, readiness instruction begins well before reading and continues long afterward as children seek to acquire new skills.

In the 1960's, new developments in reading instruction at the preelementary level were based largely on the premise that schools for young children should provide opportunities for growth in social, motor, and cognitive abilities. These goals need not exclude reading readiness and beginning reading instruction.

Current Trends in Reading Instruction at the Preelementary Level.—The overriding trend in preelementary reading instruction has been the move toward earlier instruction in reading. The need for an emphasis on the total development of the child at all levels of education is generally recognized. The concern is now focused on what form and to what extent that cognitive development should take. This is especially significant as it relates to reading instruction.

As one traces the history of preelementary education in the United States, it becomes obvious that the emphasis on reading activities at this level is a fairly recent phenomenon. The 1960's focused on the preschool years and the need for "early intervention" for certain children. This led to a greater emphasis on an earlier start in all facets of the curriculum. Reading, however, has probably received the greatest amount of attention.

The emphasis on reading has been focused primarily at the kindergarten level where, in many schools, it may be assigned to a specific time of the day and consume a major portion of the total instructional time. Even at the prekindergarten level, an increasing number of schools seem to be concerned with teaching the letters of the alphabet and other reading-related activities which were once considered the domain of kindergarten or first grade.

Along with the rise in the early teaching of reading skills, there has been a trend toward earlier and increased testing of children. Such testing is often done to screen for learning problems or to determine the child's general readiness for learning and/or specific readiness for reading. Special programs or referrals may be initiated for those children who demonstrate specific needs. In some instances, children may be classified and grouped accordingly for instruction.

Where We Want To Be: Early Childhood Development and Reading Instruction

The Way Young Children Learn and the Implications for Reading Instruction.—Probably the single most important idea for teachers to keep in mind as they plan for young children is that each is an individual worthy of dignity and respect for his or her uniqueness. This suggests that the reading program at any level should be flexible enough to accommodate a variety of cognitive styles and learning rates. Materials and activities must broaden the range of possibilities rather than reduce them to a lockstep, narrowly defined skill system.

A respect for individuality will encourage the reading teacher to provide instructional materials and learning experiences that offer a wide range of opportunities for success. For example, to extend the enjoyment of a story read aloud, one child may enjoy quietly browsing through the book on his own. Another child may enjoy painting or drawing a picture related to the story and perhaps dictating a caption to go along with it. Still others may wish to dramatize a scene from the story. This will take planning with a brief discussion of characterization, setting, and plot. Still other children may enjoy dictating a brief response to the story or listening to a teacher-prepared tape recorded version of it. All of these children would be engaged in profitable language experiences that are reading related, yet each may choose one or more of the activities to engage in.

Children learn best when they are active participants in the instruction. Even very young children can be a part of the decisionmaking process determining what and how they learn. Young children should be given an opportunity to suggest content for experience stories and to select materials for reading aloud. Children can help share in planning of projects and in developing interest centers. They should be encouraged to bring in their books, pictures, and objects, and to present their ideas for discussion. Teachers should be aware of the child's ability to contribute to the daily environment in order to foster active involvement in the learning process.

Children learn to communicate in a variety of ways. They communicate by listening, talking, making body gestures, movements, and facial expressions, and by writing and reading. The reading program should reflect the idea that reading is but one facet of a broader communications process. It is an extremely important facet to be sure, but nevertheless, it is but one part of a total communications network. Research tells us that children who excel in one area of communication generally do well in all the others. Teachers should look critically at each aspect of the language arts so that when activities are planned they will take advantage of every opportunity to extend and integrate the kinds of language experiences being offered.

Young children learn best through firsthand interactions with people, materials, and ideas in their environments. The reading program should foster the child's concept development in relation to direct experiences. Story charts and child-written books and poems can grow out of the natural hands-on activities in which children are engaged. Recipes, for example, should be prominently displayed and read before children begin to cook. By so doing, children will learn something about the usefulness of reading and the importance of following directions.

A trip to the grocery store should be preceded by the creation of a list of things to buy. The list should be written with the children watching and the items checked off as they are purchased. Every opportunity to relate reading to the children's real world will help build interest in reading as something necessary just as listening and talking are necessary and useful for their needs.

Children learn and express themselves both through what they know and what they feel. They need opportunities to communicate their feelings and to share in what others are feeling. The reading program should foster the affective and cognitive development of young children, simultaneously. For example, a discussion and listing of words that tell how they feel when they are happy or sad or a discussion of how they might have reacted if they had been a certain storybook character will help them to value language as an effective means of communicating emotions.

Young children need opportunities to experiment with language. Their most productive experimentation is included in their play. They need to play with ideas, test them out, make mistakes, and try "new" ways of doing things. Just as we allow children to manipulate blocks, paints, and clay, we must also allow them to experiment with words and letters and with the sounds that letters represent. Children who have numerous opportunities to create individual and group story charts and who are read aloud to frequently, very naturally become curious about the words and letters that represent the ideas expressed. Teachers should use this natural curiosity to develop the reading concepts children need to acquire.

For example, by occasionally making a second, identical story chart to one children have already enjoyed, pupils may compare sentence strips cut from the second chart with those on the original. Sentence strips may then be cut into individual words and reconstructed into sentences using the original chart as a guide. Individual words and letters may be matched with those on the original story chart. An array of games and activities may be developed in which children are having fun manipulating language and developing important concepts about reading at the same time.

Language Development and the Implications for Reading Instruction.—In addition to knowing something about how children learn, the teacher of young children should know something about the nature of language and language development. Teachers often have misconceptions about the language-learning process. They will often remark that a particular child or group of children has no language. In reality, by the time a child enters first grade, he or she knows all the phonemes (sounds) that are used in his or her dialect and the major structural or grammatical patterns as well.

Another common misconception is that the child must be taught the meanings of the first words he learns to read. Actually, these words should be in the child's listening and speaking vocabularies. What the child must learn to do is to associate a set or configuration of written symbols that represents the words he knows. After children learn to read, of course, many new words will be acquired through both reading and writing activities.

Teachers should remember that speech comes before written language. Writing is code for speech. Children must learn to break that code. Since children learn to speak long before they learn to read and write, they already know their language. Their need is to learn to decode its written representation. It makes sense to begin with representation that is real language for children being taught. Reading programs that make use of the child's own natural language as a foundation for word recognition skills would seem to be more akin to the natural language learning patterns of children.

The Reading Process and the Implications for Reading Instruction.—The reading process is a term used to describe what people do as they read. Teachers of young children would profit from acquainting themselves with theoretical models describing the process of reading so that their instruction may be more related to what we know about how children learn and to language development. Models have been developed of what is thought to be happening from the initial perception of written symbols to the point where a meaningful message is understood by the reader. These models are necessarily theoretical in nature since few of the behaviors of reading can be observed. A useful source of information about theoretical models is that of Singer and Ruddell (1976).

Models of the reading process generally include prediction by the reader, a search for data to confirm guesses, and an understanding of the message. The child's own general knowledge, language ability, and familiarity with the material help to build a store of expectations that allows him to predict what words might make sense in a given passage. These expectations may be tested by the child using various understandings about language and knowledge of the content. As we consider these components of the reading process, it becomes obvious that they are very much like those processes used by the child as he acquires oral language. Using this as a theoretical base, the teacher can develop strategies for reading that are natural and which make sense to the child. (Pflaum, p. 114.)

For example, printed forms of words should always be presented in meaningful context and they should already be a part of the speaking vocabulary of the child. Children should expect to get meaning from printed material and they should have opportunities to have their own oral language transformed to print and read aloud. To the beginning reader, reading may well be regarded as listening to talk which has been written down.

In summary, children need to develop a sense of what a word actually is and to develop consistent expectations for meaningfulness in reading from the very beginning. As instruction proceeds, they should develop a search for a match between what they know about language and the written materials they encounter. Children will add and maintain words within their sight vocabularies when they begin to perceive sound-symbol correspondences. Thus, they should be encouraged to use context and decoding clues in combination as a means to test new worlds.

Emerging Issues

During the 1960's, educators in the United States took a close look at preventive approaches to reading failure. A large amount of Federal funding for research studies and innovative projects at the pre-first-grade or preelementary level led to the exploration of ways to improve the learning capability of those children termed "disadvantaged." The results of these efforts had far reaching implications for all children and, to a a great extent, served as the basis for the current issues outlined below.

Continuity Between Preelementary and Elementary School Programs

For many years a demarcation existed between what were considered appropriate instruction practices for preelementary-school children and the instructional objectives and practices of the elementary school. The lack of articulation which continues to exist between these two levels of education places an unnecessary burden of discontinuity on the child's education.

Preelementary and elementary schools in the same community should cooperate by at least sharing information related to curriculum goals and practices. In some cases they might even develop a cooperative curriculum which would reflect the developmental growth patterns of the children they serve. This effort works best if parents and community agencies are included in the planning.

Establishing and Articulating Theory and Practice

Opinions differ on what kind of early childhood education is desirable. In terms of reading and language arts instruction, these differences are both wide and varied. As adults, we make the decisions about what is desirable for the education of young children. We set goals, develop specific objectives and plan educational procedures accordingly.

A major issue in preelementary education today is the proliferation of packaged reading and language arts programs. Such programs are all too often purchased as a response to public pressure for an earlier start in reading rather than the natural outgrowth of thoughtfully conceived instructional goals and objectives. Thus, they (the packaged programs) tend to dictate the goals and objectives of the instructional program rather than respond to them.

One critical task for early childhood educators is the examination of what they believe about how children learn and what the content and method of the learning should be. They must provide themselves with a theoretical framework or point of reference from which to operate. Although this point of reference may range anywhere from a preacademic/behavioristic model to a discovery approach, it should reflect what both the administrators and the teachers of a given program believe.

Once the theoretical framework has been established, program goals should follow. From these, the content and methodology will naturally flow. In all cases, the program goals, content, and methodology should relate to the theoretical framework that has been established. For example, if the theoretical framework includes a model of learning that stresses motivation by external reinforcement and product-oriented goals, the instructional objectives would develop through carefully structured sequences from simple to complex. Immediate feedback and reinforcement for each set of behavioral objectives would be important. The classroom environment and schedule of activities would be highly structured with a minimum of distractions.

If the theoretical framework includes a model of learning that stresses active learner participation and goals that focus on the process rather than the product, the instructional objectives would develop through a planned orderly schedule; however, there would be considerable flexibility and children would be motivated to inquire and extend their understandings. Affective and cognitive goals would be balanced. The classroom environment would include interest and learning centers. Activities would be integrated in content and by direct and indirect instruction. (Nurss, 1976.)

Therefore, when materials are made or purchased and when activities are planned for child learning, they should reflect the philosophy of education in operation. This philosophy or theoretical framework should be developed by administrators and teachers in cooperation with parents and it should be articulated both in what the educational staff says and in what it does.

The Role of Parents in Reading Instruction

Parents should understand that they are the child's first and most important teachers of reading. It is virtually impossible to overestimate the importance of home influence on the child's acquisition of reading skills.

In most cases, parents still have almost the sole responsibility for the child's development during the critical years of language learning. We know that reading is a language process. Therefore, the kind of start the child gets during these important language learning years will have lasting effects.

Parents have always had a profound influence upon the education of their own children. As parent involvement becomes increasingly prevalent, however, the effect of parents upon the general quality of instruction in the schools is strengthened. The decisions that parents make—both as the heads of individual families and as members of the school community—have far-reaching implications. In order to serve children well, these decisions must come from responsibility and knowledge rather than as reactions to frustration and confusion.

Thus, when parents ask about the reading program, their questions should be answered with clarity and forthrightness. But whether they ask or not, there are several things they should know.

They need to know the importance of their own role as teachers of reading.

They need to know how reading is related to speaking, listening, and writing. They should understand how the broad array of communications activities help to enhance reading readiness and indeed are an integral part of the reading program.

They should be aware that there are many approaches to the teaching of reading at any level. They should be informed of the instructional goals of the program in which their child is enrolled and given examples of the types of activities that foster those goals.

Parents should know that just as there are many different approaches to reading instruction, there are also many different ways in which children approach the task of learning to read. Parents seem to accept the fact that their children differ in size, weight, coloring, and temperament. They must be helped to understand that individual differences are equally prevalent and perhaps even more significant when they are applied to learning.

Teachers need to share, with parents, their knowledge about the literature that is available for children and they need to help clarify with parents the parents' responsibilities during the reading-learning years. These responsibilities would include reading aloud to children, helping children select books, serving as a reading model, playing language games with children and taking care of hearing, vision, and speech problems promptly.

The Challenge of Community Pressure for an Earlier Start in Reading

Community pressure for earlier starts in reading seems to be increasingly prevalent throughout the United States. A good reading program within a school will provide opportunities for reading at all levels. However, it will never demand from an individual child more than he is maturationally equipped to handle.

Following this premise, no school would force all children into a single regimented system of instruction. Instead opportunities for reading, signs, labels, and child- and teacher-authored books and story charts, would be possible for the very young. The child would have many opportunities to expand his language orally and to increase his listening comprehension as a foundation for more and more complex skills of reading and writing. Children would acquire language skills in as natural a manner as possible, primed to the point that reading almost seems to happen as a matter of course.

School personnel should not and need not box themselves into a position of being for or against reading instruction at the preelementary level. What they need to do is to articulate the child-centered, language arts-oriented language development program as *the reading program*.

Language Diversity and School Programs

Today, possibly more so than ever before, teachers of young children are likely to be faced with a wide diversity of language speakers in the classroom. Psycholinguists tell us that these differences may not always be related to maturity or intelligence, but that more often they may be accounted for in terms of regional and socioethnic differences. They have urged us to look upon these language variations or dialects as differences rather than deficits. The following principles concerning language acquisition and development should help to provide a theoretical framework for teachers as they seek to accept and build upon the natural language the child brings to school:

1. Child language is learned in very much the same way, regardless of the language being learned or the learner's culture. The stages of development are regular and predictable.
2. No matter what the child's natural language may be, it is still possible for the child to express feelings and to share information and experiences.
3. It is quite common to find several variations or dialects of a language within a given language system.
4. Speakers of any dialect vary in their ability to use language effectively. The limitations of an individual speaker should not be assigned to the dialect itself.

The school's attitude toward language variations will determine the type of instructional program offered. In schools where only one dialect is considered correct, an attempt will be made to force children to eradicate their "bad language habits." Such attempts are generally futile. Teachers often persist in doing this, however, while ignoring the more important focus—the child's performance in his or her own dialect. Greater emphasis in this direction will help to develop the competency needed for the child to expand his or her language repertoire to include the standard dialect which is unquestionably desirable in our society.

Alternatives for Evaluation

For many years, educators have been concerned with the dangers of standardized testing, particularly the over reliance on and misuse of standardized test scores. Such tests are becoming more common at the preelementary level where children are often administered a reading readiness test. In some cases, a test of general mental abilities or concept development may also be given. Often, the tests are neither administered nor scored by the classroom teacher, the results being returned in the form of a list of overall scores or categories in which children have been placed.

At best, such evaluation is severely limited in its usefulness. When used as the primary source of measuring progress, however, it may lead to erroneous conclusions since it may not accurately reflect the educational goals and objectives of the program of the children being evaluated.

Observation checklists and recordkeeping are two valuable evaluative methods that may supplement or substitute for standardized testing. The use of checklists has already been mentioned as a useful diagnostic tool. Checklists should be used as guides that help furnish a sense of what the child has accomplished and where help is needed. They serve to remind teachers of the concepts that may be missing in a child's repertoire. For example, a language arts checklist at the preelementary level might include the following examples:

Oral language—child expresses himself in telling about his art work; child can retell a story in sequence; child listens when other children are talking.

Visual skills—child recognizes own name in print; child discriminates shapes; child discriminates letters, words.

Interest—child asks the meaning of words and signs; child shows an interest in books; child shows an interest in listening to stories read aloud.

Recordkeeping is another important evaluative tool. Records must be kept systematically and on a long-term basis if they are to reveal useful information. In addition to anecdotal information related to the child's social, emotional, and cognitive development, assorted samples of the child's work should also be included. Teacher's records, assessments or work, and reports to parents should also be added. Recordkeeping not only provides useful information about individual children, it also provides invaluable information for program evaluation.

Screening Children for Learning Problems

One rapidly growing trend in the United States is the practice of screening very young children for possible learning disabilities. A series of tests or informal diagnostic procedures may be given, often upon entrance to kindergarten. These procedures may include a wide range of skills including general knowledge, language, and motor skills.

While the underlying purpose (the prevention of failure in learning) is a noble one, such procedures can be limiting or even damaging to children. Tests performed on children at this age are much less reliable than those performed on older children. Young children do not always do their best when they are confronted with an entirely new situation. New materials, procedures, and new people with whom they must interact are likely to intimidate young children. Moreover, when such tests are given prior to school entrance, they do not take into account the valuable information that teacher observation and experience can add.

Screening for learning problems should be an on-going process at every level. Systematic observation by a trained professional, the classroom teacher, and referrals to appropriate specialists when required may be the method that is not only most accurate but most fair to the child. There are numerous developmental checklists available to help guide teachers in their observations of children. Such checklists are often accompanied by suggested activities to help teachers make judgments and to provide practice in particular skills. In some cases, school systems have developed their own observation guides with suggestions for appropriate activities to assist in long-term screening and followup.

In summary, hasty judgments made in the press of time and under stress-filled circumstances for the child may result in incorrect labeling and misguided or needless referrals. The skilled classroom teacher, trained in observational techniques and in child growth and development should be at the heart of any diagnostic and prescriptive program in the schools.

Teacher Preparation

Traditionally, the goals for preelementary and elementary education have been vastly different. We have already seen that it has been relatively recent that the goals have begun to overlap. Because of this early division of roles, however, preelementary teachers were often trained very differently from those who were planning to teach at the elementary levels.

Today, reading is being taught at the preelementary level. Preelementary teachers need to view reading in its broadest sense, as all the language related activities that involve speech to print and print to speech. Such teachers need a firm foundation in language development and language arts instruction. They also need to know what is and what is not appropriate procedure for the child at various stages of development.

Preelementary-school teachers need to be acquainted with instructional procedures normally used with older children, as well. This will serve as a knowledge resource for where the children they are working with are headed. They should be able to help the child who is already reading by providing activities that are appropriate to that child's stage of development.

Elementary teachers would do well to have the same kind of understandings in reading and language arts instruction as those described as being appropriate for preelementary teachers. Many of the basic procedures are viable for any grade level and the compelling need at the preelementary level to constantly link instructional practices to principles of child growth and development would be useful for teachers of older children.

Teacher-training institutions, agencies, and professional organizations must provide the kind of preparation described at both the preservice and inservice levels.

Balancing the Program: Affective and Cognitive Goals

Many are concerned that by introducing print before first grade, the important socioemotional and affective learnings will be neglected. Indeed, this can happen where rigid, time-consuming programs are initiated.

A reading program that has as its base materials developed from the child's own experiential background will automatically produce a balanced program of affective and cognitive goals. This kind of teaching encourages personalized instruction where teacher and child share important ideas, experiences, and observations. Cognitive and affective learnings are integrated and ongoing throughout the day. Children and teachers are encouraged to be creative in the learning process.

Preelementary Programs as an Integral Part of the Educational Structure

Preelementary education has increasingly become recognized as an integral part of the total educational offerings of the community. The significance of lifelong education has been extended from the cradle to the grave. While in many instances the education of the very young child may include or be restricted to educational programs designed to help parents fulfill their roles more effectively, it has also become increasingly common for children to be enrolled in some type of schooling from infancy.

Where preelementary programs exist, they are often viewed not only as educational opportunities but as a means for providing health and social services. They thus become an important socializing agency of the community. The quality of preelementary schooling and care-giving may have critical effects upon the present and future development of children as human beings. Public and private schools and agencies must work together to plan to coordinate efforts on behalf of the child, the family, and the community.

The Need To Provide a Wide Range of Individual Differences

Much has been written about respect for the individual's rate and style of learning, especially as it relates to the acquisition of reading skills. Indeed, we have already discussed this point as one of the most significant factors related to how children learn. When we speak of the child's style of learning we must be careful not to restrict our discussion simply to a focus on modalities. That is, does the child prefer an auditory, visual, or tactile mode? In terms of learning styles, we must also be concerned with whether or not the child is an effective, independent learner or a youngster who needs a great deal of step-by-step direction. We would want to observe whether or not he learns best in a small group or in a one-to-one setting.

In order to observe these differences it will be necessary to provide for them. A sound reading program at any level would be flexible enough to provide opportunities for those children, who appear to have a preferred modality, to learn that way. It will also provide opportunities for support in other modes of learning. Thus, in attempting to help a 4-year-old to recognize her name, the teacher may print the name on a card to be posted on the child's locker or on some other prominent place. The child may draw, cut, and paste a small picture on her name card as an additional clue. The teacher may also take the child's finger and trace the letters as she and the child say the name or the name may be traced in sand or salt.

At the preelementary level, certainly one of the best ways to move in the direction of individualized learning is to begin with some large group activity and then extend and follow up the learning with small group activities and on a one-to-one basis. An experience chart, for example, based on some whole group activity would be a record of the children's dictated response to that experience. It would be read to them and discussed by the group extensively. Many small group and individual extensions of that activity may naturally follow. Some children may reread the entire chart or the lines they have contributed, others may wish to create additional sentences. Some may draw pictures that relate to the content of the chart and dictate their own personal stories to accompany them.

A class word bank, consisting of words written on cards by the teacher may be created to which children add words they select from each new chart that is made. An individual or group of children may use the words in the word bank to reconstruct sentences from the chart or to form new sentences.

Most important, the activities must be so varied that every child can participate at his own level and be successful.

Integrating the Language Arts

We have already discussed the importance of the integration of the language arts as it relates to what we know about how children learn. It remains a critical issue in the teaching of reading today, although research clearly points to its value.

Research has indicated over and over again that children who are successful in one facet of the language arts are much more likely to be successful in others. Certainly our own experience and observation tell us that young children who acquire good listening skills and who demonstrate strong oral language development are likely to have very little difficulty in acquiring the skills necessary to be successful readers. And, much more often than not, it is the good readers who are the better writers of both personal and practical composition. Instruction in one area, then, would seem to increase facility in the others. This suggests that reading skills are not acquired in isolation and should not be taught as if they were. Every attempt must be made by parents and teachers to relate and coordinate reading activities with listening, speaking, and writing activities.

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CHAPTER III—SUMMARY

The author details the basic approaches used in beginning reading instruction and asserts that if one examines the nature of the reading process serious questions about certain current teaching procedures will be raised.

The basic thesis of this paper is that reading is a language act and consequently any approaches, methods, and materials which view reading as anything *but* must be called into question.

The author explains the characteristics of a good reading program in the early elementary grades and makes a strong plea for each school to develop a well thought out philosophy of reading instruction.

The paper concludes with specific recommendations to educators, parents, publishing companies, professional organizations, and State departments of education.

CHAPTER III

Teaching Reading in the Early Elementary Years

by W. Dorsey Hammond
Professor of Education
Oakland University
Rochester, Mich.

In contemporary American society it is generally considered to be the responsibility of the schools to teach children to read during their early school years. All public schools in the United States provide learning to read programs in the early elementary grades. Though these programs may vary in both scope and intensity, it is a foregone conclusion that when children enter school they will receive instruction in reading.

If one asks a first grader why he/she is going to school, a common reply is "I'm going to school to learn to read." One of the questions that most parents are concerned with is, "Will my child learn to read?"

Teachers are selected to teach the early elementary grades many times because of their ability to teach reading. An examination of the daily schedule of a typical first-grade class would indicate that more time is devoted to the teaching of reading and the related language arts of listening, speaking, and writing than any one other curriculum area and usually more than all the other curriculum areas combined such as math, science, social studies, art, music, etc.

From the point of view of the school, the child, and the parents, learning to read is expected of early elementary schoolchildren, and the school has the primary, though not the sole, responsibility for ensuring literacy.

It is generally accepted also, that the school will concern itself with teaching reading when children are approximately 6 years of age or about the time children enter first grade. At what age children should be taught to read is a controversial issue. Some advocate the teaching of reading in kindergarten. Others, both professional and lay people alike, argue that not all children are ready to learn to read by first grade and that beginning too early can lead to failure and consequently become damaging to the young child both in terms of subsequent learning and attitudes toward reading. The issue of when to begin reading instruction will be discussed later in the paper.

Reading in Historical Perspective

The teaching of reading in today's schools emerges out of an interesting past.

From the early 1600's until the Revolutionary War period considerable emphasis was placed on learning to read, but the subject matter of early reading was a much more important consideration than was the teaching method used. One needed to be able to read the Bible and various religious creeds, prayers, catechisms, and the like. Learning the ABC's was preparation for the real job of reading.

After the Revolutionary War, reading instruction was used as a means of purifying the language of this new and independent Nation. There was a heavy emphasis on rules and exercises for pronunciation and elocution. The bulk of the famous Blue

Book Speller was made up of word lists and syllables. Noah Webster spoke of the importance of "beginning with the elements of the language and to explain the power of the letters." (Webster, 1798.) There was a great emphasis on spellers at this time not only for writing but for reading and elocution.

Around 1840, Horace Mann and others led a protest against the ABC method and began a movement toward a word method of reading. There were exceptions to this movement however. At about the same time, the McGuffey readers were introduced, the first series of graded readers and the first materials to consciously repeat new words for reinforcement. The McGuffey readers were the forerunner of the modern day basal reader series.

After our first 100 years as a Nation, around 1880, we began to see an increased emphasis on the quality of reading, a concern for what was being read, and interest in good literary quality. Interestingly enough, as early as 1890 there was in some circles a condemnation of books and materials because "they were not real literature." (Smith, 1965.)

In 1908 a hallmark in the history of American Reading Instruction was the publishing of Edmund Huey's "Psychology and Pedagogy of Reading." This was one of the first successful attempts to look at the teaching of reading in a scientific and scholarly fashion. The book remains a classic to this day.

Around 1900–25 there was a trend away from oral reading and toward silent reading, a trend toward examining sentence structure, and an emphasis on reading for meaning. Teachers' manuals and supplmentary reading material began to appear. Other approaches began to be recognized. Augmented alphabets, a forerunner to modern day i/t/a, were used in some circles. Experience stories and experience charts, where children learn to read by dictating their own materials, began to grow in popularity.

Around 1925 we began to see a split between a philosophy of sequential skills versus an activity centered, so-called progressive education movement, stimulated by John Dewey and others.

As more emphasis was placed on *how* to teach reading, more university courses on the teaching of reading began to be offered. Positions for reading teachers and reading supervisors were opened in the public schools.

The 1940's saw an increased awareness of and concern about reading. During World War II as men were drafted into the armed service it became apparent that many of these young men could not read. The 1940's also saw the continued introduction of basal readers and supplementary materials. Reading readiness books were introduced and more teachers manuals were supplied for teachers.

The Russian Sputnik of 1957 caused the United States to reexamine the school curriculum, not only in science and math, but reading as well. The Great Society Program of the Johnson administration in the mid-sixties poured massive amounts of Federal moneys into the local schools for libraries, audio-visual equipment, and programs for the disadvantaged. At about this time educators and the lay public began to call for reading materials to reflect the ethnic, cultural, and racial backgrounds of the young children who were being asked to read this material. A short time later, the manner in which women were portrayed in reading materials also became a concern.

In 1964 the U.S. Office of Education sponsored 27 research studies on first grade reading to find out what was the best way or ways to teach reading. No one particular method and approach proved to be superior. Though it remains in vogue to say the *First Grade Studies* proved nothing, a careful reading suggests that although the studies as a group did not accomplish their stated objective, there were significant findings within certain individual studies.

In recent years, psycholinguistics, the study of language and the thought processes, has had an increasing influence on our thinking about the teaching of reading; the study of how young children acquire language, the nature of language, the nature of the reading process, the role of thought in reading, dialect and its effect on reading performance, the role of visual and auditory ability in reading, the diagnosis of reading performance, and so on.

Finally, as school systems became larger and more complex and moneys from various sources, local, State, and Federal Government, began to be used more and more in a multitude of special programs and situations, the inevitable questions had to be raised. Are we getting our money's worth? Are programs working? Are children learning to read and how well? Can we do better?

How Reading Is Taught in Today's Schools

Aukerman (1971) has stated that more than 100 approaches to beginning reading are presently available. It is commonly stated that there are as many approaches to beginning reading as there are teachers of beginning reading. The number of approaches is contingent upon one's definition of an approach. Clearly there are more than 100 beginning reading programs available, but many of the programs use a similar approach, and of course different approaches or combinations of approaches may use same or similar programs.

It should be noted that the tendency by both some professional educators and some of the lay public to classify beginning reading into "look-say" versus "phonics" is a gross oversimplification and simply incorrect.

Despite this seeming confusion and tendency among some to oversimplify, it is possible to categorize approaches and programs into five or six basic approaches to beginning reading which are understandable to both the lay person and the professional educator. Each of these approaches, so classified, represent identifiable assumptions about the reading process and how reading should be taught. Though the approaches will not be examined in depth, the general characteristics are as follows:

Vocabulary control.—Until a few years ago this approach to beginning reading was characterized by basal reader series. In this approach individual words are the basic units. Usually words of high frequency are introduced systematically and repeated at specified intervals. Through repetition, the words are reinforced for the beginning reader. Basal reader preprimers are exemplary of this approach. As the child progresses, so-called new words are introduced and the child gradually expands his or her reading vocabulary. For example:

> Dick said, "Jump, Spot!
> Get that!
> You can get that."
> —Scott Foresman & Co., 1965

Though it varies from program to program, phonetic analysis is taught concurrently with this approach. For instance, if the story character is named *Spot*, children can then use that as a base word or sight vocabulary to go from *Spot* to *not*, to *got*, *hot*, etc. Some of the high frequency words do not pattern phonetically such as *said*, *of*, *are*, etc., but are taught to be recognized at sight. An important part of a vocabulary control approach is to develop early what is commonly referred to by educators as a basic sight vocabulary, i.e., a core of known words that children will recognize immediately. In addition, most materials using a vocabulary control approach focus on high frequency words in their beginning materials.

Grapheme-phoneme control.—This approach to beginning reading concerns itself with introducing words that are phonetically predictable and are spelled the way they sound. For example:

> Dad ran to the fan
> Dad had to fan Nan
> Dad had to fan Dan
> Dad had a bad fan.
> Can Dad fan Nan?
> Can Dad fan Dan?
> —Science Research Associates, Inc., 1964

The assumption is that the easiest way to teach beginning reading is to focus on phonetic regularities in our language system and to avoid as much as possible phonetically irregular words until children have developed some proficiency in recognizing words in print. As the child progresses however, more phonetically irregular words are introduced into the context of reading.

In this approach, sometimes referred to as a linguistic approach to reading, the unit of control is not the word, but the phonetic pattern such as *an* in *Can man fan Dan?* or vowel plus *t* as in *fit*, *pit*, *pet*, etc. It should be noted here that referring to these programs as linguistic readers is a bit misleading, for they usually take into account only one aspect of linguistics, namely phonology.

Some basal reader programs use phoneme-grapheme control strategy rather than a vocabulary control. Other programs attempt to combine the two; vocabulary control and grapheme-phoneme control.

Letter-sound correspondence control.—These approaches are most difficult to describe because of the variety of examples of programs using them. The supporters of alphabet approaches operate from a premise similar to the linguistic advocates. They recognize the problems of asking children to memorize large numbers of words based on configuration, shape, and other characteristics. These approaches tend to teach the alphabet and the sounds represented by individual letters, and then encourage children to synthesize or join the sounds represented by letters and letter combinations into words. Even though much variance exists within this general approach, it is characterized by a belief that knowledge of letter sound relationships is the basis for learning to read.

One of its problems is that in English, many words, particularly words of high frequency, are phonetically irregular. Because of the lack of one-to-one correspondence between sound and symbol, various attempts have been used to overcome this problem. One approach was to use diacritical markings much like those used in a dictionary for pronunciation. Another, more well known approach, was to develop a 44-letter or augmented alphabet so there would be one-to-one correspondence between sound and symbols. For each of the 44 basic speech sounds (phonemes) there was a symbol or letter (grapheme). The initial teaching alphabet (i/t/a), received much attention as an approach to reading in the mid and late sixties. For example:

> "ie am sad," sed the dienosaur.
> "ie am sad. ie am ill."
> —Initial Teaching Alphabet Pub., Inc., 1963

Though augmented alphabet systems are probably not as popular today as they were 10 years ago, programs utilizing an alphabet type approach to beginning reading are still very much a factor in beginning reading education.

Syntactic control.—A fourth approach is to focus on sentence structure. This approach capitalizes on the rhythm of language and meaning. One major publisher has moved from vocabulary control to sentence control. In the 1940's to 1960's edition an example of vocabulary control would look like this:

> Jane said, "I see the hat!"
> Do you see where it is Dick?
> Come and see where the hat is.
> —Scott Foresman & Co., 1965

Now this publisher's material is exemplified by this story.

The girl got on the bus. (picture of girl sitting on bus)	p. 1
Then the bus went fast.	p. 2
The boy got on the bus. (picture of boy getting on bus)	p. 3
Then the bus went fast.	p. 4
The fish got on the bus. (picture of fish getting on bus)	p. 5
Then the bus went fast.	p. 6

—Scott Foresman & Co., 1971

In each example there is considerable repetition. However, in the first example, words are repeated such as *see, where, hat,* etc. In the second example, certain sentences are repeated as opposed to words and the sentence pattern itself remains constant. The assumption behind this approach is that the phrase or sentence is the thought unit not the word or the letter. In addition, the beginning materials are highly predictable in terms of sentence structure and meaning. This is done purposely to insure a successful early reading experience.

Language experience approaches.—Another major approach is the language experience approach to reading. In this approach children learn to read through their own dictated experience stories or charts. The assumption of language experience is that children will learn to read easiest by first reading their own language based upon their experiences. For example:

> Today Jody had an incubator at school. It had eggs in it. The incubator had a light bulb in it to keep the eggs warm. One egg had hatched. The chicken was wet. The heat will dry its feathers and keep it warm.
> Pam
> —(Stauffer, 1970)

Though there are several distinguishing features of the language experience approaches, two should be mentioned in this paper. The first is that the earliest words and phrases that a child learns to read are determined by the child and the teacher. There is no common so-called core or sight vocabulary of all the children in the classroom. However, one of the goals in most language experience approaches is that each child will develop a basic sight vocabulary unique to his personal experiences. Second, language experience approaches are distinguished by the fact that the child is not expected to learn everything in one lesson before moving to the next lesson. In an experience story the young reader is not asked to learn all the words in one experience story, only the words that he appears capable of learning at the given time. This is in contrast to a vocabulary control approach in which to have success on page 17 of a book it is important to have learned everything on pages 15 and 16.

Individualized reading.—One other approach should be mentioned, namely the individualized approach to reading; sometimes referred to as personalized or self-selection approaches. The individualized approach to reading, though often talked about as a beginning reading approach, is really more commonly used after children have passed through the beginning reading phase. In this procedure children individually select their own books and other reading material. The library or instructional media center as well as a classroom library is at the core of this type of program. This approach has many redeeming features but in actual practice it tends to be used in concert with other approaches in the beginning stages such as basal readers, linguistic readers, or more commonly, a language experience approach. In fact, most language experience approaches naturally lead into an individualized, self-selection reading program.

It is important to recognize that various approaches and aspects of approaches can be combined in some instances. Basal readers, for example, which still tend to be characterized by vocabulary control, have a word analysis strand, in some cases utilize grapheme-phoneme control, take into consideration syntactic or sentence patterns, and may supplement with experience stories. This may happen to a greater or lesser degree. Combining for combining's sake is not necessarily good or desirable. Furthermore, some approaches are more complementary to one another than other approaches.

Trends in Contemporary Reading Programs and Approaches

It is not easy to identify trends on a national basis. It appears, however, that some general tendencies are identifiable.

1. There appears to be a move toward more emphasis of sentences or syntactic patterning and away from the individual letter, individual word approach.

2. There seems to be growth in the use of child-dictated experience stories using the children's own language as an approach to beginning reading instruction.

3. Augmented alphabets of the type characterized by i/t/a have most likely decreased in use in the regular classroom over the last 7 to 8 years.

4. Graphophonic approaches as characterized by so-called linguistic readers appear to have lost some popularity, although they are still used in many areas of the country.

5. There appears to be greater emphasis on meaning, and reading in a meaningful context from the very beginning as exemplified by language experience approaches and some of the syntactic patterned early reading materials.

6. There is increasing recognition that reading and the other language arts complement each other. Consistent with this view is a significant increase in young children's creative writing as not only a legitimate activity in its own right but as a complement to the reading program. Indeed this represents a major identifiable trend.

7. Over the past 10 years in particular, there is increasing awareness of dialect as a factor in reading; that when a young reader appears to misread, it may be a dialect variation. If meaning is not lost, no significant error has occurred.

8. There also appears to be more emphasis on diagnosis and testing for determining child placement into appropriate learning activities.

9. There is also a movement toward the management of the teaching of reading or the systematizing of reading curriculum for monitoring and evaluation purposes. This is one of the more controversial areas at present. Reading skills management systems are still in their infancy and at best very crude. At present none appear to be based on a sound theoretical framework of the reading process.

10. Over the past 15 years there has been an increasing evidence in many schools of the influence of the British Primary School Model, sometimes referred to as Open Schools. These schools, though they vary significantly, are characterized by greater movement among the students, learning centers and learning stations, interest areas, and opportunities for students to work in areas of their own interests and aspirations. Coupled with this curriculum is an emphasis on creative writing and creative drama activities, and an individualized or self-selection approach to reading.

These trends are more obvious with certain schools and certain areas of the country than in others. Some trends are in strong contrast to each other, such as syntactic control versus alphabet control programs or skills management systems approaches versus a British Primary School Model.

In summary, most approaches and programs tend to be identified by one of the six basic approaches discussed briefly above. These basically different approaches reflect different philosophies and psychologies of how reading should best be taught to early elementary school children.

Organization and Implementation

Currently most reading programs represent some sort of combination of programs and approaches. The basal reader with vocabulary control is still the prevailing mode of instruction to the vast majority of children in the early elementary grades. Usually the program begins with Readiness Materials with a gradual movement into Preprimers, Primers, etc. The readiness materials vary but tend to be characterized by a high percentage of activities centering around sound discrimination, visual discrimination, some concept development through categorizing, and of course a relatively heavy focus on alphabet knowledge. Supplementary phonics materials are used in many schools.

In many schools, experience charts and stories are used as a supplement to the basal program. Some schools use a language experience approach almost exclusively in beginning reading and then gradually phase into basals or individualized reading, or both.

An issue that generates considerable controversy is whether or not to begin reading instruction in first grade or kindergarten. Actually the issue is a false one, for clearly some youngsters are ready to begin reading at the kindergarten level and many are not. The solution is to allow those children who are reading or ready to read to do so, while developing in the other children the appropriate kinds of prerequisite skills to reading, primarily language. Unfortunately most, if not all, of the commercially produced programs are ill-equipped to deal with this range of individual differences among 6-year olds.

Organization.—The majority of first-, second-, and third-grade classrooms are self-contained with one teacher, although during the last 10–15 years there is some trend toward open space schools where teachers are encouraged to team with other colleagues. In some cases the group of students the team is responsible for may range in age across two or three grade levels. This trend of multiage grouping or family groups appears to be growing. It is important, however, to distinguish between physically open-space schools and schools that adopt the open-school curriculum concept similar to the British model.

Personnel.—There is an obvious trend toward paraprofessionals or teacher aides helping in the classroom. This represents a significant change in personnel utilization. Also parent volunteers are being used, both in and out of the classroom. Also the use of resource teachers, such as reading teachers, reading consultants, special education teachers, and the like, is also growing. Many schools have moved away from the concept of the remedial reading teacher working only with the poor readers, moving more toward a classroom resource role. Unfortunately, many former remedial or corrective reading teachers have been asked to change their role without adequate training and role description.

One important issue is the role of special education teachers in the reading program. The expanding role of special education, particularly in the areas of learning disabilities, raises the question of the proper use of teaching personnel. The issue, complicated both philosophically and practically, is an issue that must be dealt with in any school system if proper utilization of trained personnel is to be realized.

Materials.—In addition to approaches, organization, and personnel, there are changes occurring in reading materials. One only has to look at a 1950 edition of a basal series to compare with a 1970's edition to see a developing sensitivity to multiethnic settings, the role of women, and other societal values. In addition there appears to be a move away from vocabulary control toward syntactic and sentence patterning in beginning reading materials. One major publishing house has taken a definite step in this direction with another publisher recently following suit.

As far as materials are concerned, basal programs appear to be providing a better balance between different types of reading, such as fiction, nonfiction, prose, and poetry than in previous editions. One very positive trend is an increasing availability of easy-to-read stories and poems for the young reader. However, finding enough of these easy-to-read books still remains a problem. There is an increase in the use of fun-type activities and games, suggesting a developing awareness that a child's beginning reading experiences should be enjoyable and perhaps fun.

Unfortunately, there is not enough focus as yet in reading programs on critical and reflective reading. Attention to the higher level thinking skills is sadly lacking in both materials for children and manuals and guides for teachers. Indeed, this lack of dealing with understanding or comprehension of what is being read, is the most embarrassing aspect of reading materials currently available. Even materials that purport to focus on reading comprehension are usually only testing the short or intermediate term memory of young readers, and not the understanding or comprehension of what they have read. Teaching is different from testing, and memory is different from understanding, as educators and publishers would do well to remember.

It is not easy to determine a trend in the use of hardware in actual classroom teaching such as minicomputers, talking typewriters, programed machines, etc. Clearly, this type of hardware has not fulfilled some of the earlier claims of its advocates. What appears to happen quite often is that after the novelty wears off over a 2- or 3-year period, hardware loses its initial appeal in the classroom. However, tape recorders, projection equipment, and record players continue to be used by most classroom teachers. Computer hardware now is being directed toward the management and monitoring of children's educational progress rather than being used as a teaching device. The use of television for instruction varies from State to State and area to area. Some quality programs for television have been developed, particularly in the areas of children's literature and creative drama.

Where We Need To Be

To determine where we ought to be in reading in future years it is appropriate to examine both the nature of the reading process and the nature of the learner.

Although it is difficult and perhaps impossible to define reading, it is possible to describe some characteristics of reading and what happens when one reads. Unless and until we understand some of the basic principles, it is fruitless to attempt to design a reading curriculum.

The Reading Process

It is basic to recognize the fact that reading is a language process. It is one of the four language communication processes; talking and writing being the expressive language processes, and listening and reading being the receptive language processes.

Second, language does not occur separate from thought. Language is used to express or receive ideas, concerns, beliefs, etc. And thus, if we accept the notion that reading is a language process, and language is not divorced from thought, then it follows that reading involves thought and meaning.

Third, it may be helpful to see what happens when we read. Certainly there is visual input when one reads; one has to examine the print. The question is, how often and to what extent does the print have to be examined. What tells us what is on the printed page? The reader has three cues when he reads. Smith (1970) uses the following example. "The captain ordered the mate to drop the *an* ." What is the word going to be? We are relatively sure that the word is *anchor* but how do we know? We haven't seen the whole word. But "anchor" would make sense there. Second, it sounds right. We know that the next word either is an object of drop, or a modifier of the object. Children know this intuitively. How do they know? They speak the language. By age 6 or before, most all children understand the basic sentence or syntactic structures of our language system. Finally, we can look at the complete word and confirm that indeed the word is *anchor*.

As a reader and language user, we used three cues when we read the sentence. We used meaning or semantics, we used our knowledge of word order or syntax, and we used phonics.

All three of these processes are involved in the reading act; meaning, syntax, and phonics. And so it is grossly oversimplified and inaccurate to talk about *phonics* versus *look-say*. Our knowledge of graphophonics does indeed help us to read but, as we can see in the previous example it played a relatively small part. And the more we used meaning and syntax, the less reliant on phonics we become whether we are a beginning reader or a mature reader.

What naturally happened before we looked at the entire word *anchor* was that we anticipated or predicted that the word was *anchor*. Anticipation or prediction is also a natural part of reading and indeed a natural part of all learning.

Smith speaks of cue redundancy (the concept that the more cues the reader uses the more likely he or she will be able to figure out the next word). When the reader uses semantics, syntax, and phonics, not only is the chance of success significantly increased, but no one of the three cues is overburdened or asked to do something it simply cannot do. The implications for cue redundancy should be apparent. When we reduce the availability cues to the reader, we make the reading act more difficult; we increase the chance for failure. By introducing words in isolation to a young reader, reading may become more difficult rather than easier. Words introduced on flash cards deprive the child of both semantic and syntactic cues, or two out of three cues available to him. It follows that such practices as asking children to learn words out of meaningful language context, in other words, in isolation, is a very questionable teaching procedure.

Fourth, it is worth noting that not all letters of the alphabet give equal information. Some letters tend to provide greater visual information than others. Heilman (1967), among others, has pointed out that one can delete vowel letters and still read the words. For example, _ roll_ng st_n_ g_th_rs n_ m_ss. Yet the reverse is not true. If we delete consonants, reading is indeed more difficult. __e ea__y _i__ _e__ __e _o__. It is true of course that we have deleted more letters in the second statement than the first. But the point still holds. It is relatively easy to read without including vowel letters; it is next to impossible to read without the consonants.

In addition, it has been pointed out by Kolars (1969), Smith and Holmes (1973), and others that we do not look at individual words when we read and most assuredly not at individual letters. If children are taught or told to examine individual letters, this strategy has to be unlearned before they read either fluently or for meaning.

Out of these observations we can make the following points about the act of reading which have implications for how reading should best be taught. They are as follows:

1. Reading is a receptive language process.
2. Reading involves meaning, or receiving and reacting to thoughts.
3. A reader has three cues when he/she reads: Semantics (meaning), syntax, and graphophonics. The more cues the reader employs when reading the easier and more effective the task.
4. Some visual elements (letters) are more information-producing than others.
5. When one reads, one does not examine each word or each letter but samples the visual information selectively.

The Learner

Before examining the implications for instruction and program development it is appropriate to highlight some of the characteristics of the young learner.

By the time a child enters school it is likely that he/she has a speaking vocabulary of approximately 7,500 words. (Carroll, 1964.) The child not only has a large speaking vocabulary but is able to arrange these words into meaningful thought units of phrases and sentences. Psycholinguists tell us that most 6-year olds are able to use the five or six basic sentence patterns that are most commonly used in everyday speech. Young children are able to meaningfully arrange words in an almost infinite variety of combinations within the sentence patterns. This is because the child has not so much learned a language as he or she has learned a system of language from which many new combinations of words can be generated.

Characteristics of language users is a process referred to by linguists as *semantic fulfillment*. Semantic fulfillment is the phenomenon of a need or drive to want to communicate; to communicate to satisfy both physical and psychological needs. One only has to watch a baby try to speak or a young child become frustrated because he/she cannot make us understand what he wants, to verify the existence of this behavior. In other words, the motivation to communicate through language is a strong human drive.

There are also psychological factors about learning which affect our decisions about reading. Piaget (1952) identifies four basic stages of cognitive (thinking) development; birth to 1½ years is the sensori-motor stage, 2–6 years is the preoperational stage, 6–13 years the concrete operations stage, and 12–13 years and over the formal operations stage. To describe the various stages in depth requires extensive explanation. At the risk of oversimplifying, note that the young child of 6–7 years of age is moving out of the preoperational stage to the concrete operations stage. In the concrete operations stage children tend to think in concrete terms as opposed to abstractly as adults are capable of thinking. This does not mean that early elementary age children cannot think effectively. They certainly can. It just means that their thinking is characterized by concrete reference points based upon their experiences both real and vicarious. There are two other phenomena which are relevant to the young child learning to read. In the preoperational stage and the early concrete operations stage (6–12) children tend to be egocentric in their view of the world. This does not mean they have a great deal of ego, or are selfish, etc., but literally they see themselves (I or ego) as the center of the universe. It is very difficult for them to remove themselves from the situation and assume an entirely objective role, or the role of another person. As they develop they become more sociocentric and less egocentric. Coupled with this, is a phenomena known as *centration* or centering. The 5- or 6-year old will center or focus on one aspect or element within the whole. They may not be able to see the total problem or total picture. As they mature, this occurs less often as decentering occurs.

These characteristics of concrete thinking, egocentricity and centration, must be considered in developing reading curriculum, materials, and testing procedures.

Although the study of both the reading process and the learner requires extensive scholarly reading and investigation, several points have been mentioned briefly. In summary, then, we can characterize children entering our school system as successful language users, concrete in their orientation to problems, egocentric and tending to center yet becoming more sociocentric and decentering as they mature. Their past history is one of learning a language because of the opportunity for language interaction and the need or drive to understand and be understood. They show competency in an extremely complex linguistic art, namely talking.

Though the picture may seem unduly optimistic, this is the character of the vast majority of children who enter our classrooms. It is also the character of many children who are failing to learn to read.

The inevitable question then arises. If children are good at language, and reading is a language process, why is learning to read so difficult and painful for so many?

Implications for Teaching Reading in the Early Elementary Grades

What are some implications for the teaching of reading?

If we accept the previously mentioned tenets about reading and the learner we have to look at their implications and raise the following points:

1. If reading is a language process and language conveys meaning, one must question expecting young children to learn to read while using reading materials that do not make sense to them, or materials that do not convey meaning.

2. If reading deals with meaning and meaning helps us to read, then how can one justify approaches or materials that look at reading as first teaching them to decode and then teaching comprehension. There is no such dichotomy!

3. If cue redundancy or increasing the cues when one reads makes learning to read easier, then it follows that reducing cues makes learning to read more difficult. If that is so, one has to question the practice of flashing words in isolation to a beginning reader. Words in isolation deprive the child of both the semantic and syntactic cues.

4. If a reader does not examine individual letters when he reads, one has to question the teaching of individual letters and individual sounds. By the same token, however, if graphophonics is one of our three cueing systems, clearly some teaching of letter-sound relationships is helpful or expedient. It should not be on a letter by letter basis, however. Letter knowledge characterized by teaching the alphabet and the sounds that the letter represents simply is not a prerequisite for learning to read.

5. If a child in the early elementary grades still tends toward concrete operations as defined by Piaget then one must question the practice of first attempting to teach a core of words that are basically abstract such as *was, is, the, of, when, then, etc.* These words convey relatively little meaning. Any first grade teacher knows that the word *dinosaur,* or *elephant* is an easier word in context for isolation for a 6-year-old to learn than *was, saw, is, and,* etc. Furthermore, the first words children learn to speak are words characterized by fulfilling a physiological or psychological need. Might not the same be true with learning to read? It is a myth, of course, that "little words" are easier to learn than "big words."

6. If reading is only incidentally a visual act, then one has to question an inordinate amount of time spent getting children ready to learn to read by visual discrimination activities which characterize many of the activities in reading readiness materials.

7. If children have demonstrated that they learned language through interacting in a rich language environment how can we justify classrooms that are less language rich than the outside world? And, if young children in learning to

talk were allowed to experiment with language and even to make what appear to be language mistakes, one has to question an insistence on word perfect reading of published materials, and letter-perfect spelling in the *beginning* stages of learning to read and write respectively.

8. If we recognize that the communication processes are interrelated or interdependent, one has to question teaching reading out of the context of other language activities such as creative writing, creative drama, listening, and talking.

What then are the characteristics of a good reading program for the early elementary years?

It is suggested that it have the following characteristics:

1. It will be language-based, dealing with clauses and sentences which are the basic unit of thought, not the word or the individual letter. Words should be introduced in meaningful context, not in isolation.

2. It will not require all children to learn the same words at the same time, nor progress at the same rates. It is as unrealistic to expect that all children will be at the same point in their reading development by the end of first grade as it is to expect all children to weigh the same, or run at the same speed.

3. It will allow children to read. One thing that has to occur in reading class is the provision of opportunities for children to read. Self-selection, buddy reading, echo and choral reading, and reading in groups often encourage reading.

4. It will use graphophonics training or phonics in conjunction with reading, not as a prerequisite to reading. This training must be done orally. One cannot teach phonics through worksheets and workbook pages.

5. It will recognize that the phonetic skills of reading are not additive; vowels, plus digraphs, plus diphthongs, plus syllables do not add up to reading. Only reading begets reading.

6. It will provide for a teacher or an aide to read to children a great deal, giving them appropriate reading models, and exposing them to a variety of children's literature. It is unfortunately not true that all children come to school wanting to learn to read.

7. It will view reading in a broad sense: The reading of books, magazines, signs, advertisements, brochures, commercials, songs, riddles, poetry, plays, etc.

8. It will use methods that minimize failure and build confidence; experience charts, choral and echo reading, poetry, nursery rhymes, storytelling, and published materials which insure a good chance that the child will linguistically predict correctly what is on the printed page.

9. It will involve children in a great deal of reading without insisting on word-perfect reading of published materials in the early stages.

10. It will develop children's strategies for effective reading that they can use when the teacher is not present. For example: What to do when they come to a word they don't know, how to set their own purposes for reading, how to intelligently self-select what they want to read, etc. Note: The first strategy that a child should use when he comes to a word he/she doesn't know is not to "sound it out," but rather "what word would make sense here."

11. It will minimize workbooks and worksheets; they seldom teach, but merely test what a child does or does not know.

12. It will develop consistency: Consistency in materials and consistency among teaching personnel. For example, if the child is told by one teacher to "sound words out" and by an aide or resource teacher, to "skip the word and come back to it," the child naturally becomes confused.

13. It will allow children to share and measure their own progress in concrete terms; share what they can read, share what they have written, share their creative dramatics, etc. All children must be given chances to share and display their accomplishments, not just the so-called better students.

14 It will provide a classroom that has some predictability and structure but that is language-rich with reading materials, poetry and rhymes, word collages, songs, creative drama activities, etc. For many children, reading will not occur until they have strengthened their ability to use language.

15. It will place children in activities and materials in which they can best profit from instruction, regardless of the reading approach and program used. The concept of instructional level in reading is still a viable concept. Some 8- and 9-year-old students must be instructed at

a level usually associated with a lower grade or younger age group. Until this instruction occurs these children simply will not learn to read.

16. It will use comprehension activities that go beyond mere memory and literal recall. In the early elementary years children need to be encouraged to reflect on what they read, tell why they thought certain things about what they've read, predict what they believe will happen next, and be encouraged to support their views with evidence from their reading. In addition, children must read with purpose, having some notion of *why* they are reading and *what* they are reading to find out.

17. It will encourage early writing activities with a focus on ideas, even though the children make mechanical errors. These will be mastered later.

18. It will develop in the children a healthy attitude on what reading is, and will help children see that in many ways they are reading all day long. It will not allow children to equate reading with anything but the processing of print in meaningful context.

19. It will encourage the type of classroom that is conducive to language learning. Children must be expected to do their best, but not afraid to make errors. Physically the classroom will be conducive to verbal communication. Spaces and times for quiet reflective activity, as well as the activities that generate a good deal of oral communication will be provided.

20. It will follow a philosophy and psychology of reading. Each school and district must have a well thought out, clearly articulated philosophy about the teaching of reading based on the nature of the reading process, the nature of the learners in that school, and the nature of the teaching staff in that school. It should be at least partially developed and fully understood by the teaching staff, the administration, and the parents. This philosophy or statement then becomes the basis for teaching methodology, personnel utilization, materials procurement, and testing programs. Too often the materials tail has wagged the curriculum dog. Until the teachers and principal of a school begin to stand for something in reading instruction, they are likely to fall for anything, and too often have.

Accomplishing the Quality Reading Program of the Future

Clearly, new insights into the reading process will continue to occur both through research of a theoretical nature and through field studies. However, our responsibility is to continue to apply what we now know about the reading process, and how reading should be taught.

The characteristics of a quality reading program have already been stated. Though the list is not all-inclusive, these characteristics cannot be ignored.

This section will list what appear to be the priority roles and responsibilities of major segments of society. The suggestions do not exhaust the possible actions that can be taken. For the sake of brevity they will be listed.

School Personnel

Local school personnel include the superintendent, administrative staff, classroom teachers, resource personnel, paraprofessionals, and boards of education.

1. Each school district should develop a well thought out, consistent reading and related language arts program. The chief school officer of the district as well as classroom teachers must be involved jointly. Clearly, the chief school officer cannot always be expected to have as much insight into reading as others on his/her staff, but a way to learn is to be involved in the discussions and interactions with people in the district who do know.

Too often, school personnel and boards of education removed from the teaching situation, and naive about reading, have made costly decisions about reading in terms of material procurement, staff utilization, and testing programs. Quite frankly, the record of the local chief school officer's meaningful involvement in developing quality reading programs has not been good. Frequently, school leaders opt for something spectacular rather than for quality programs.

2. Teachers and school principals should understand what reading and language is, and how to best teach it. This should be done with on-site seminars and study groups conducted by only

the most competent of reading and language experts.

3. Teachers and school principals should broaden their perspective. For example, a third-grade teacher should understand the reading program from kindergarten through at least the junior high level. There are no such things as "third-grade skills" in reading. Only when this understanding across grade and age levels is accomplished can the individual teacher put into proper perspective the techniques and approaches he/she uses at any given time. And until this occurs, an individual classroom teacher cannot adequately explain and justify a particular curriculum to the parents of his/her students or to other educators.

4. Teachers should communicate with each other more, ask questions, and share ideas in a serious and professional manner. Collectively, a teaching staff possesses a great deal of knowledge and talent. This knowledge must be spread around without the receiver or sender feeling uncomfortable. Such an atmosphere is not easy to accomplish but it is an important goal for every building principal and supervisor.

5. Teachers and administrative personnel alike should agree that released time for additional inservice education must be provided. If we believe the teacher makes the difference, then teaching skills must constantly be upgraded. But staff development must be carefully planned and effectively carried out. Many teachers regard inservice education as a waste of time because too often it has been a waste of time. Staff development days are not the same as work days during which teachers work on report cards and school records. Inservice should deal with crucial issues such as language, the reading process, motivation, group dynamics, personality theory, which have meaningful implications for teaching.

6. Plans for reading programs and staff development should be long range. School operating budgets are drawn up and approved usually at least 1 year ahead of actual expenditures. Boards of education are more likely to refuse a request which does not appear in original budgets "because there's no money in the budget for it." Staff development plans need to be made at least 2 years ahead of actual implementation and be consistent with an overall plan of 5 to 7 years.

Parents

Parents and citizens pay the education bill. Though this gives certain rights it should not permit the use of the purse to dictate bad curriculum and bad teaching practices. Professional educators must explain more effectively curriculum and curricular options and then involve the community in those decisions. This cannot be accomplished, of course, until there is a curriculum or program plan to share.

Specifically, parents should:

1. Realize that teachers and parents are not adversaries. Both parties want their child to have a successful school experience.

2. Realize as their child enters school that not all children will learn to read by the end of first grade. The undue pressure for all children to be reading by the end of first grade is most likely a significant contributor to reading failures. It is unreasonable to believe every child should be reading by the end of first grade. They did not all begin talking on the same day, nor did they use the same words in their early speech.

3. Visit the school, confer with teachers, and, when possible, volunteer time and talent to the local classrooms.

4. Refrain from taking over the teaching of reading of their child. Sending so-called sight words or phonics exercises home to be done by the parent at night is a dereliction of a teacher's duty and should not be tolerated by parents.

5. Understand that reading to their child, talking to their child, playing games, telling stories, doing interesting things together, reading themselves, and insuring that their child goes to school well-rested and well-fed in a relatively happy frame of mind is the best insurance of reading success that a parent can provide.

Education Materials Publishers

Publishers of educational materials must accept the responsibility for developing materials of a quality nature.

Specifically, materials publishers should:

1. Become as knowledgeable about the reading process and implications for materials as the most knowledgeable reading experts.

2. Constantly field-test their materials.

3. Hire consultants and sales representatives who have a history of outstanding teaching experience. Too often sales representatives are selling materials and making recommendations for teaching that they neither understand nor can relate to.

4. Build materials which will lead to the best teaching practice.

5. Service districts with consultants after materials have been purchased.

Universities

The university role is at least twofold. First, the university must train and retrain teachers more effectively than is now being done.

Universities should:

1. Provide a broad and in-depth background in child development, language theory, learning theory, motivation, personality, cognition, and group dynamics. This cannot be stressed too strongly. Teacher training suffers from being too narrow and perhaps too superficial. There is a body of knowledge about language, about child development, about how to motivate human beings, that teachers must know. For example, teachers are in the business of raising questions, and teaching their students how to question and inquire about themselves and the world around them. And yet how many classroom teachers have had training of any significance in the art or skill of question asking?

2. Provide rigorous reading and language arts courses which reflect what is now known about the learning to read process.

3. Require a minimum of one course in children's literature in both graduate and undergraduate programs.

4. Require extensive teaching practicums in reading at both the graduate and undergraduate level.

5. Become generally more selective about those who train as teachers. It is not entirely unreasonable to expect teacher-training institutions to stand by their graduates for at least 2 years after graduation, and provide followup training when necessary, at minimal or no cost to either the teacher's employer or the teacher.

6. Provide extensive onsite resources to individual teachers and districts. Many outstanding schools of agriculture at land-grant colleges have provided meaningful services to their clients in the field for over 100 years. Comparison of farm productivity today with that of 50 years ago suggests that the model is an extremely effective one, and not one that education should readily dismiss.

Universities must continue to engage in meaningful research. The research in psycholinguistics over the past 20 years has been particularly fruitful. One area of research that must now receive top priority by educators, psycholinguists, and psychologists is comprehension and information processing. The question of how best to teach children to understand, reflect critically, and apply what they read demands continued research and study. Specifically, semantics, or meaning, must become a top priority in research. There is some evidence that this is already beginning to occur, but it's still in its infancy.

Finally, university teaching staffs must be intellectually rigorous with both their students and themselves.

Professional Organizations

Professional organizations at all levels: local, regional, State, national, and international must continue to play an increasingly active role in the reading world.

Basically, these organizations should:

1. Provide a forum for the exchange of ideas, problems, and research at all levels of the educational community.

2. Disseminate information on research, teaching techniques, regulations, and guidelines related to reading. Professional organizations must be particularly careful that misinformation, poor research, and bad practices, both in the private and public sectors, are exposed while at the same time being open to new ideas, new avenues of inquiry, and new solutions which at the time may seem questionable and farfetched. This is not an easy task.

3. Become more active in developing legislation needed to realize our goal of a literate society and help inform legislators of the deleterious effect certain legislation may have on the profession. Naturally, professional organizations should remain apolitical but surely any professional organization whose goal is the supporting of literacy and effective communication can rightfully communicate with legislative bodies.

4. Take a more active role in informing the lay public of the goals, problems, and issues within its profession. Daily newspapers, as an example, often include articles on the teaching of reading that are inaccurate, misleading and filled with half-truths. It is not the purpose of professional reading organizations to prevent such articles from appearing, but rather to ensure, to the extent possible, that accurate and responsible articles are provided to inform citizens, and counter much of the misinformation about reading which occurs from time to time.

5. Continue to encourage and sponsor reading institutes, research seminars, lectures, workshops, and conferences. For professional organizations at the regional, national, and international level, research should be sponsored and encouraged.

State Departments of Education

State departments of education must take a leadership role in supporting quality reading curriculum at the local levels. Some State departments are already doing this.

Specifically, State departments of education should:

1. Establish general guidelines from which local schools may develop their own programs.

2. Provide resources, particularly personnel for curriculum development, staff development, decisions on materials, and decisions on testing programs.

3. Act as a dissemination center, for and among districts.

4. Provide a forum for the interaction of teacher-training institutions, both university- and nonuniversity-related, local and regional school offices, and professional organizations. Some State departments already have exemplary programs in this area.

5. Refrain from imposing specific curriculums or testing programs on individual districts. Some State departments now require or strongly suggest that all children in the State learn certain objectives in reading or learn certain words by the end of 1st grade, end of 2d grade, etc. There are no such things as "1st grade words, 2nd grade words," etc. In at least one State, children are tested in reading in the early grades without having to read any meaningful content. At the same time, however, State departments do have a responsibility to insure that local incompetence or lack of commitment to improve reading does not persist. States can require testing and diagnosis of local programs, but at the local level.

In the name of accountability it is not necessary for a State department of education to test every child every year or at every grade level. Random sampling techniques which are followed up by selected in-depth diagnosis of reading performance would yield much more meaningful information for subsequent program planning and implementation. Statewide universal pupil testing programs which by nature are superficial in their results lead to misinformation, inappropriate comparisons among schools and districts, undue and unfair pressure on both children and teachers, and in effect useless information.

It would be helpful if State departments of education and local school districts distinguished between program evaluation for which random sampling techniques may be used to gather in-depth data on selected students, and individual student diagnosis, where in order to diagnose the performance of an individual student that individual student will need to be involved.

Finally, State departments of education, regional centers, and local school districts must be careful in the use of screening devices for young children intended to identify young children who may have difficulty learning to read. It is a basic truth of psychological testing that tests for the very young and the very old are most susceptible to a lack of validity and reliability.

Conclusion

Whenever one lists suggestions for improvement or change, invariably some important issues are left out, and others relate to some situations but not necessarily to all.

There are many positive changes occurring in American reading instruction in the early elementary years. It would be a mistake to imply that significant progress is not being made. However, the virtual elimination of illiteracy has never been realized in any nation in history, and the goal will not be easy to achieve. Each individual change and improvement moves us closer to the realization of this goal. It is important to remember that every institution; parents, teachers, school administrators, university personnel, professional organizations, State departments of education, and Government have significant roles to play.

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CHAPTER IV—SUMMARY

The author states that intermediate/middle school reading programs seem to be characterized by underemphasis of developmental and content reading skills due to insufficient classroom time and underdeveloped teacher knowledge and performance (teaching) competencies.

It is the position of this paper that improvement in the intermediate/middle school reading program should focus on improving the developmental and content reading programs and the pre/inservice education of teachers.

Special emphasis is placed on the rationale and strategies for fusing product (what is to be learned) with process (the reading/learning strategies).

In addition the author recommends that a planned recreational reading program be included as an integral part of any reading program.

CHAPTER IV

Reading in the Intermediate/Middle School

by Joseph S. Nemeth
Director, Reading Center
Bowling Green State University
Bowling Green, Ohio

There seems to be general agreement among reading professionals that instruction should be developmental, continuous, and sequential. Also, there seems to be general agreement that the intermediate/middle school is one of the most crucial learning periods within the educational continuum. Educators and parents expect intermediate/middle schoolchildren to use their reading skills more rapidly and effectively in accumulating facts than primary children are able to do. These beliefs and expectations are based on the assumption that most intermediate/middle schoolchildren have adequate reading skills. This seems to be a fairly safe assumption. The latest report from the National Assessment of Educational Progress (NAEP) shows that from 1971 to 1975 the percentage of 9-year-old children who were able to answer reading test items has increased significantly. The overall reading achievement of 13- and 17-year olds has shown some improvement in literal comprehension but a slight decline in inferential comprehension. Further support for the "adequate" reading skills assumption comes from the conclusions drawn by the Tuinman, Rowls, and Farr "then and now" reading achievement study. This study reviewed extant research, studied available school records, collected reading achievement information on the State level, and studied the records of independent schools. Some of the conclusions from this important study were. (1) There should be no en masse pessimism about reading achievement "now" in comparison to "then," (2) there has been a gradual improvement in reading over the four decades prior to 1965, and (3) since 1965, there may have been a very slight decline (the researchers are least certain about this last conclusion). Thus, it appears that reading achievement seems to be at least as good as and, in some specific skills areas, better than ever. But, is this good enough?

The Developmental Reading Program

A large majority of intermediate/middle school students have acquired the necessary language facility and basic reading skills to enable them to read, to develop knowledge, background, and interest in curricular areas. Developmental reading skills should continue to be refined, extended, and enriched. However, some intermediate/middle schoolchildren need sequential reteaching of basic developmental reading skills. Despite this need for constant, sequential reinforcement, it appears that instructional time devoted to developmental reading decreases as the student advances through the intermediate/middle school. Harris and Sipay say that, on the average, 5 hours per week in the fourth grade, 4 hours per week in the fifth grade, and 3 hours per week in the sixth grade are assigned to teaching developmental reading skills.

If too little time is being expended on developmental reading instruction, higher level comprehension skills seem to deteriorate as pupils advance through the educational hierarchy. Support for this comes from a survey of reading conducted by the National Assessment of Educational Progress. After testing a group of 9-, 13-, and 17-year olds in 1971 and then again in 1975, it was reported that all ages scored well on items which were basically factual questions. As reading tasks become long and harder, with more different types of questions (such as inference) the 13- and 17-year olds' ability to score dropped off rapidly. The report recommends that a "back to basics" approach is not what is needed, but rather more reading programs stressing higher level comprehension skills.

Substantial research and progress have been made in teaching primary and elementary children how to read. However, teaching reading at the intermediate/middle school levels, where narrative and expository reading assignments are longer, more complex and abstract, requiring increasingly sophisticated comprehension skills is less than adequate. To improve intermediate/middle school (grades 4-8) reading instruction, a Center for the Study of Reading was established in 1976 at the University of Illinois under a contract from the National Institute of Education.

Intermediate/middle school reading instruction appears to be too narrow and limited for teaching the "knowledge" or reading skills. For example, vocabulary teaching may be limited to recognizing words and knowing their meanings, word analysis to an emphasis on knowing primary level decoding skills, syllabication rules, and dictionary skills. Comprehension instruction seems to be limited to answering oral and/or written questions predominantly at the literal or factual level. Application and use of the cognitive processes at higher levels of comprehension are not sufficiently stressed. Also, practice in varying the rate of reading in response to different purposes, the difficulty level of the material and the reader's background of knowledge is seldom given sufficient attention.

The using of developmental reading skills for narrative type reading, and for establishing personal reading habits, attitudes, interest, and taste, is encouraged through participation in an individualized program of children's literature. Successful intermediate/middle school reading programs include children's literature as a planned part of the total reading curriculum. Other essential recreational reading components include the following: (1) A good teacher model is provided; (2) freedom of choice is encouraged and respected; (3) reading enjoyment (not skills) instruction is the intent; (4) classroom reading and sharing of content is provided.

The basal reader may still be the primary instructional vehicle at the intermediate/middle school levels. These readers typically represent collections of narrative, story type material. However, an increasing amount of expository, factual type materials is appearing in some basal readers. Accompanying the basal readers are the usual workbooks. Also, teacher manuals are available which are considerably less detailed than those in the primary grades.

However, subject matter/materials that intermediate/middle school students are expected to read and study are not only diverse, but replete with abstract, technical language, unfamiliar syntactical writing styles, semantically confusing phrases and sentences. Therefore, content textbooks are often too difficult for many students to read. It appears paradoxical that on the one hand educators and parents expect intermediate/middle schoolchildren to comprehend and accumulate facts more rapidly than primary schoolchildren and yet, on the other hand, insufficient instructional time is assigned to teaching these children to read and cope with curricular materials.

Intermediate/middle schoolchildren spend much of the time reading curricular type materials and are expected to obtain much of their information and instruction through silent reading. Improving content reading skills is one of the most neglected components of the intermediate/middle school reading program. While most intermediate/middle school subject-matter teachers accept the philosophical admonition that "every teacher is a teacher of content reading skills," many fail to implement this belief into practice. For example, Austin and Morrison (1963) reported that 25 percent of the schools they surveyed had no content reading instruction. Of the remaining 75 percent, content reading instruction was superficial and incidental at best. Additional evidence that content reading skills and learning processes are not effectively or efficiently taught or learned can be obtained from a national survey of reading skills conducted in 1971 and again in 1975 by the National Assessment of Education Progress ("National Observer," Oct. 2, 1976).

In summary, insufficient instructional provisions are made to (1) systematically teach developmental reading skills, (2) assure that developmental reading skills are transferred to expository type reading, and (3) develop new skills to meet the demands of the various content curriculums. (Roswell, 1959.)

Improvement in the intermediate/middle school reading program should focus on (1) the developmental and content reading programs and (2) the pre/inservice education of teachers.

Where We Ought To Be

While there is no one answer available, there are two major instructional approaches in the intermediate/middle school which help assure continuing and sequential progress in reading skills. These are (1) more emphasis on the systematic teaching of the developmental reading skills, and (2) better provision for individual differences among pupils.

Emphasis on the systematic teaching of developmental reading skills must include direct teaching of the reading processes (the "how" to do it) as well as the products (reading skill knowledge), and provide sufficient practice so that each process is mastered beyond conscious memory and transferred to narrative and content reading. An acronym should help keep this suggested instructional sequence firmly in mind: TOT for Teach/Overlearn/Transfer.

Basic to this concept is the belief that reading is a developmental process which uses a diagnostic/prescriptive approach. This approach provides each intermediate/middle schoolchild entry to a developmental reading skills continuum at his appropriate learning level. This helps guarantee teaching to strengths to overcome weakness, providing opportunity for maximum student successes. Teachers must recognize that reading is indeed developmental and skill processes are not mastered at any given chronological age, grade level, or point on the educational continuum.

Reading is a total, integrated process made up of many levels of language, skills, abilities, and memory patterns which range from simple to complex, and from easy to difficult. For example, the teacher should be able to prescribe easier and simpler levels of word analysis skills so that developmental skills acquisition becomes a fact. This is especially important at the intermediate/middle school levels because of the wide skills achievement scatter among the pupils. Table 1 illustrates the concept that simpler and easier skills provide developmental readiness for succeedingly more complex and difficult skills. However, it is also obvious that intermediate/middle schoolchildren, for one reason or another, have uneven skills development and will not fall into neat squares. Thus, table 1 should be used to guide rather than rule instruction.

Looking horizontally at table 1, the teacher can readily see a suggested, sequential progression of any one area of word attack as it systematically progresses from very simple to more complex levels. Vertically, the chart shows a suggested scope of the word analysis instructional program at any one level. Grade level designations and solid lines have been eliminated to stress the idea that levels and skills are interrelated. The teacher's role is to diagnose the levels, strengths, and weaknesses, and then prescribe needed systematic instruction along a continuum which evolves from simple to complex and from easy to difficult. *The important concept to be remembered is that sequential instruction along a scope and sequence of skills is essential.*

Although such systematic teaching will necessarily lead to product/process knowledge of word analysis skills (i.e., knowledge of sound/letter associations, useful generalizations, etc.), strong emphasis should be placed on the mastering of each process as well as on the transfer of the processes to decoding both the pronunciation and meaning of unfamiliar words as they are met in independent reading.

One specific example of process teaching is the contextual analysis or "beep" process. The child is taught the following process: (1) Say "beep" and read on to the end of the sentence, (2) go back to the "beeped" word and determine the beginning sounds, (3) search your memory (visual and auditory) for words which start the same and fit the sentence, (4) select clue words/phrases in the sentence to help with the meaning, and (5) if you cannot get the pronunciation and/or meaning, try using the next step of the Systems Approach (see table 1), i.e., parting it.

Cloze exercises, gaming techniques, and other strategies should be used to provide sufficient practice to assure the mastery of skill processes. Additionally, the transfer of the skill processes should be demonstrated with relevant narrative and ex-

TABLE 1.—A GUIDE TO THE DIAGNOSIS/PRESCRIPTION OF WORD ANALYSIS SKILLS*

Simple to complex levels Subskills—Easy to difficult	Level A	Level B	Level C	Level D
Word recognition .	Visual perception. Visual discrimination. Visual memory.	Basic sight vocabulary.	Extended sight vocabulary.	Advanced sight vocabulary.
Context	Listening cloze (sentence). Picture context.	Reading cloze sentence. Context clues: Frame—beep, etc. Semantic—meaning. Syntacticle—pos. Pronunciation.	Use of context for verification. Use of advanced context (beep) clues.	Systems approach: Frame it (V. Disc. & Mem.) Beep it (context). Part it (struc. anal.) and beep. Phonic it and beep. Consult (dictionary or ask) and beep.
Phonics	Visual and auditory perception. Discrimination. Memory. Blending.	Consonants: Initial Final Blends Diagraphs Plus context clues Plus blending	Vowels: Long Short Digraphs Diphthongs Some rules Syllabication/ Context/Blending	Applying phonics in a systems approach to word analysis as above.
Structure	Inflected endings: Listening and speaking exercises such as cloze.	Reading inflected endings. Compound words. Contractions. Blending.	Prefixes. Suffixes. Roots. Structural changes.	Applying structural analysis in a systems approach as above.
Dictionary . . .	Alphabet names.	Oral definitions. Alphabetic sequence. Locational skills.	Locational. Pronunciation. Meaning.	Locational. Pronunciation. Meaning. Formal. Applying dictionary skills in a systems approach as above.

*Adapted from Wilson and Hall, p. 145.

pository materials by the teacher and then practiced by the child with the materials he is using in the classroom.

The area of comprehension is also of critical importance. Comprehension should be viewed as a thinking process which involves an interaction between the reader and the material which is to be read. Thus, the teacher must understand the thinking process to improve the teaching of comprehension. The careful reading of such authorities as Bloom (1965), Sanders (1966), Russell (1956), Stauffer (1965), Krathwohl et al. (1964), Farnham-Diggory (1974), and Klausmeier and Ripple (1974) will enhance the teacher's knowledge of the thinking/comprehension process. In addition to the basic understanding that the thinking/comprehension process is hierarchical, the teacher should have a systematic procedure for diagnosing, prescribing, and adjusting instruction. Whatever approach is used, two things should be uppermost in the minds of teachers: (1) What level(s) of comprehension/thinking are to be demonstrated? (2) In what type of learning situation are the comprehension/thinking levels to be demonstrated? Wilson and Hall (1972), have suggested a useful grid which may help the teacher adjust instruction to satisfy the preceding questions. The learning situations systematically provide the setting and/or materials which facilitate the comprehension/thinking process. For example, even poor readers in the intermediate/middle school have sufficient information and experience to become involved in listening and discussion thinking activities at the literal, interpretation, and application levels. Next, pupils might be directed in three level comprehension/thinking exercises with easy reading materials, such as language experience stories. The next step is to work with comprehension/thinking activities in materials which are at the pupil's instructional level. Finally, the pupil is guided to set his own comprehension/thinking purposes with materials he is reading independently. The adapted grid is shown in table 2.

The grid may be used to provide alternative instruction for Julie or Julie's group which is not responding to interpretation level questioning in easy material: (1) Move the group to a different learning situation, i.e., listening/speaking or, (2) move to an easier level of comprehension/thinking within the learning situation, i.e., literal level in easy reading. Note that solid lines in the table have been eliminated to emphasize that comprehension/thinking levels in various learning situations are not always clearly differentiated or identified.

Expert opinion and research point out that the key variable in guiding student learning toward higher levels of achievement is the teacher. The most convincing empirical evidence for that statement comes from intensive research based on reading methods, i.e., the 1965–68 National First Grade Reading Study (Dykstra, 1968), which has failed to reveal the superiority of one reading method over another mainly because no method can be completely abstracted from the manner in which a teacher uses it.

Since the teacher is the key variable in developing all reading (and especially higher level comprehension skills), two reasons offered for the apparent deterioration of competence in the higher level of comprehension skills acquisition are (1) the lack of time to teach, and (2) the lack of teacher knowledge of the higher level comprehension skills.

It is well known that the level of questions asked determines the level of a child's comprehension/thinking. What types of questions do teachers ask? One representative study which answers this question is Guzak's (1967) study of the types and levels of questions which elementary teachers typically ask. Guzak's research shows that 69 percent of all questions in reading were at the recall or literal level while only 0.6 percent were at the interpretation level, and 15 percent were at the evaluation level. Although there is little solid "questioning" research evidence on the middle school level, one can speculate that oral and/or written questions are largely at the literal level because of the evidence previously cited in the NAEP descriptive studies.

In addition to teacher knowledge of questioning strategies, one must also consider teacher attitude toward higher level comprehension skills. Even if teachers had sufficient time, and cognitive and performance competencies in question, attitudes such as the following most assuredly interface with teaching behavior:

1. It takes "extra" time to formulate and evaluate higher level comprehension questions/answers. This contention is essentially true but the

TABLE 2

Levels of comprehension/thinking	Learning situations			
	Listening/speaking	Easy reading	Instructional reading	Independent reading
Literal				
Interpretation (relationships such as cause/effect, etc.).		↑ ←Julie's group		
Application (critical and creative problem solving).				

results are well worth the extra time and effort (Wolf, Huck, and King, 1967).

2. Before one can learn to comprehend at higher levels, one must have certain basic reading skills. While it is that it seems to be difficult to comprehend/think at the interpretation or application levels unless one has comprehended accurately at the literal level, the research of Wolf, Huck, and King (1967) definitely showed that children in grades 1 through 6 can be taught to read critically (a higher level comprehension skill).

3. Taking time to teach higher level comprehension skills will interfere with growth in basic reading skills. Again, Wolf, Huck, and King (1967) found no significant differences in basic reading skills (reading achievement) between an experimental group in which teachers took the time to emphasize higher level comprehension skills (critical reading) and a control group in which a major emphasis was placed on basic reading skills.

Quite possibly, skill in formulating oral/written questions may be the proverbial iceberg tip in developing higher level comprehension skills. According to Rowe (1973) there is considerable evidence the "wait time" (renamed "think time" for obvious reasons by the author of this paper), that is waiting 5 seconds before calling on students to respond to questions and 10 seconds before a teacher responds to the student's answer, enhance both the quantity and quality of students' responses. Also, the manner a teacher uses to ask questions, listen, and respond to answers, seems to be directly related to a student's self-concept according to Carin and Sund (1971). Carin and Sund advise the teacher that all "wrong" answers are partially correct and that skillful questioning will provide clarification of the incorrect parts of the response. In short, acceptance builds self-concept and rejection erodes it.

Additionally, a factor which can affect the amount comprehended is the quantity or length of the material which must be read and remembered. Discouragement, poor motivation, confused thinking, and forgetting are the most likely results of assigning too much reading matter too rapidly.

The relationship of language and linguistics to comprehension/thinking is an important one. Attention and teaching should be directed to it. Some authorities, such as Goodman (1968) have stressed that reading comprehension/thinking is an interaction of the reader's and author's thoughts and language.

Lefevre (1970) advises that teachers need a basic knowledge of language structure which should include syntax or practical analysis of sentences. He divides basic syntax, or practical analysis of sentences, into four subsystems (1) intonation; the rhythms and melodies of sentences (stress, pitch and juncture), (2) sentence patterns; word order plus the order and arrangement of sentence parts, (3) structure words; functional or "empty" words, numbering about 300, which signal certain syntactical structures and relationships within sentences, and (4) word-form changes; which includes derivational prefixes and suffixes plus grammatical inflections of nouns, verbs, adverbs, and adjectives. Lefevre advises that the most important principle in methodology is that comprehension/thinking instruction should be language centered and should stress the inductive process of discovery. The teacher is strongly advised to read thoughtfully Lefevre, Goodman, and other linguist's suggestions for insights which may transfer into comprehension/thinking teaching strategies.

Emphasis on these and other aspects of the developmental reading program (vocabulary, affective reading) utilizing a systematic teaching, overlearning, and transfer approach, and following a sequential hierarchy of product/process skills will lend itself to better provision of individual instruction.

In summary, one great need of the "free world" culture and society is the ability to develop the higher level comprehensive/thinking abilities of every individual so that he may analyze his own needs, strengths, and weaknesses, and select from multiform opportunities those which best meet his lifetime objectives and those objectives of the society in which he lives. This type of behavior calls for improved reading, especially for higher level comprehension/thinking processing skills which, like any physical or cognitive skills, are developed only through knowledgeable teaching, sustained practice and transfer to life situation. Moreover, research indicates that these higher level thinking skills may be developed many ways, at any level of the educational continuum, and are developmental in nature.

The Content Reading Program

A position of this paper is that it is more efficient and effective in terms of teaching/learning time to fuse the teaching of content subject matter knowledge (the products) with the teaching of the learning/reading skills (the processes). There is a growing body of research evidence and opinion which seems to indicate that when content product/process teaching occurs, there is improvement in: (1) Content achievement (the products), (2) reading achievement (the processes), and (3) teacher/student motivation and attitudes. (Herber and Sanders, 1969; Herber, 1970; Herber and Barron, 1973; Nemeth and Shoemaker, 1975.)

Fusion or simultaneous teaching of product/process has the following programmatic characteristics:

1. The reading process skills of vocabulary (context, structural analysis, and dictionary), comprehension (leveled reading/thinking, internal organization patterns, and speeded comprehension) and study skills (recalling and remembering) are equally applicable to all content areas. The degree of process application is determined by the content to read figure 2. (Nemeth and Shoemaker, 1975.)

2. A functional, direct, structured, and systematic teaching procedure is used to implement the simultaneous teaching of product/process. One example of such a technique is the directed reading/thinking approach which has a four step procedure: Readiness; silent reading; rereading for emphasis, clarification or verification; and reinforcement for overlearning and remembering. One of the most important steps in this procedure is the readiness or prereading assistance techniques which are taught/used before silent reading; i.e., advance organizers, structured overviews, preselection/teaching of vocabulary, perceiving internal/external organization patterns, and speeded comprehension (flexibility) estimates/adjustments. Purposes for silent reading may be established by noninterlocking and interlocking leveled study guides, which require some facts from the materials, interpreting the relationship of the facts and applying the facts to life situations. (Herber and Sanders, 1969; Herber, 1970; Herber and Barron, 1973; Nemeth and Shoemaker, 1974.)

3. Regular curricular reading materials are used to facilitate teaching/learning. This preserves the relevancy and helps to foster direct application or transfer to the range across and within the various syntactic and semantic structures found in content subject matter. Quite obviously, fusion teaching/learning takes place within the classroom and the context of the regular content instruction period. No special materials, equipment, teachers, or extra time are required.

4. There is a deliberate attempt to individualize content reading instruction by utilizing a diagnostic/prescriptive approach. One way to accomplish this is by grouping and using differentiated assignments. For example, intact reading groups can use differentiated vocabulary reinforcement exercises, leveled interlocking or noninterlocking study guides and leveled oral discussions. (Herber, 1970; Herber and Sanders, 1969; Herber and Barron, 1973; Nemeth and Shoemaker, 1974.) Other criterion referenced techniques may also be used for classroom diagnosis and grouping, ie., observation, Comprehension Assessment by Cloze Procedure, Content Informal Reading Inventory, and self-selection. Sometimes, classroom diagnostic and grouping decisions may be based on scattergrams which use norm referenced data such as IQ and reading comprehension, listening and reading comprehension, and math and reading comprehension. Whatever technique is used, groups must be flexible, ever changing and, after meeting the purposes for which they were organized, dissolved. Evaluation of students should be based on the quantity and quality of work reflected by the leveled assignments. This means that weak students should receive good grades if they do well on leveled assignments. Again, instructional emphasis and importance should be placed on processes as well as products of learning. For example, it is probably more important to teach the word meaning processes of context, structure and dictionary than to teach a list of technical vocabulary words and their meanings. Once word meaning processes are learned, the child becomes an independent learner in materials which have similar syntactic and semantic construction.

5. Implementation of a content reading program should begin in one content subject with one small group and only after practically oriented and adequate inservice education. Admonition and persuasion work best when there is "know-how" present.

Through this fusion of content/subject matter knowledge, it seems clear that the reading needs of intermediate/middle school pupils can be more efficiently and effectively met in subjects requiring content reading. The material which is to be read will help the teacher determine which reading processes are to be emphasized.

How Do We Get There?

To get from where we are to where we ought to be, emphasis should be placed on teacher education and gradual program evolution.

Teacher Education

Preservice education methods courses should reflect the theory and practice that are expected to be practiced when education students become teachers. Content area preservice reading education must also emphasize diagnosis and grouping, process/products teaching, and so forth. In other words, it, too, must reflect practices which will ultimately be implemented in each classroom. One such project was attempted in 1970–71 (Estes and Staiger 1973) with four teams of professors. Each team was composed of a liberal arts content specialist, a reading methods professor and/or a teaching methods professor from a content area. The project met with varying amounts of success in implementing teaching procedures aimed at fusing product/process in undergraduate content subject and teaching methods classes. More such experimentation at the preservice level is needed since teachers tend to use their "favorite" teachers as models and teach as they were taught. Although it is a position of this paper that preservice teachers should have more than one course in the teaching of reading, assumptions should not be made that "more" always results in "better." Attempts should be made to provide the teachers of teachers (college professors) with opportunities to review, refine, and extend their knowledge and performance teaching competencies. In short, emphasis at the preservice level should be on developing teaching competencies which have practical application in the classroom.

Inservice Education

The wise teacher uses at least three avenues to keep up to date in his field: (1) Wide reading of professional journals and books. A good beginning toward making professional reading a habit can be made by alloting a specific time each day to this activity. Some suggestions for professional reading are as follows:

(a) Professional Journals
- *Reading Teacher.* International Reading Association, Newark, Del. 19711.
- *Journal of Reading.* International Reading Association, Newark, Del. 19711.
- *Language Arts.* National Council of Teachers of English. Urbana, Ill. 61801.

(b) Professional Books
- Developmental Reading
  - Harris, Albert J. and Edward R. Sipay. *How To Increase Reading Ability.* Sixth Edition. David McKay Company, Inc., 1975.
  - Heilman, Arthur W. *Principles and Practices of Teaching Reading.* Third Edition. Charles E. Merrill Publishing Company, 1972.
  - Karlin, Robert. *Teaching Elementary Reading.* Second Edition. Harcourt Brace Jovanovich, Inc., 1975.
  - Wilson, Robert M. and Maryanne Hall. *Programmed Word Attack for Teachers.* Second Edition. Charles E. Merrill Publishing Co., 1974.
  - Wilson, Robert M. and Linda Gambrell. *Programmed Comprehension for Teachers.* Charles E. Merrill Publishing Company, 1976.
  - Wilson, Robert M. and Maryanne Hall. *Reading and the Elementary School Child.* Van Nostrand Reinhold Company, 1972.
- Content Reading
  - Burmeister, Lou E. *Reading Strategies for Secondary School Teachers.* Addison-Wesley Publishing Co., Inc., 1974.
  - Herber, Harold L. *Teaching Reading in the Content Areas.* Prentice-Hall, Inc., 1970.
  - Nemeth, Joseph S. and Marjorie Shoemaker. *Content Reading: Fusing Product and Process.* Nemar Publishing Co., 1975.
  - Robinson, H. Alan. *Teaching Reading and Study Strategies.* Allyn and Bacon, 1975.

(c) Student's Materials

Be a Better Reader. Prentice-Hall, 1970.

Go, Reading in the Content Areas. Scholastic Magazines, 1975.

Read Better, Learn More. Ginn and Company, 1973.

The Reading Line. Pulaski, 1970.

(2) attending and participating in local, State, and national professional meetings. Some professional organizations and their addresses are as follows:

International Reading Association
800 Barksdale Road
Newark, Del. 19711

National Council of Teachers of English
1111 Kenyon Road
Urbana, Ill. 61801

(3) enrolling and actively participating in local staff development workshops and/or university courses. Some materials which may be used for content reading inservice education:

Teaching Reading in Secondary Schools. The Film Library, 1455 East Syracuse, N.Y. 11210.

Reading Across the Curriculum, 1977. TRICA Consultants, Inc., 15 Braeside Drive, Homer, N.Y. 13077.

Teaching Reading Skills in Content Areas, 1974. Sandpiper Press, Inc., P.O. Box 19225, Orlando, Fla. 32814.

Teaching Content Reading Skills, 1976. Charles E. Merrill Publishing Company, Columbus, Ohio.

Teaching Teen Reading Series, 1974. Ohio Department of Education, Columbus, Ohio.

The overriding goal of any inservice endeavor is to improve reading processes which will help each student achieve his life goals and contribute meaningfully to his society. Thus, the overriding objectives of attempts to improve reading and especially higher level comprehension processes are not only to show through norm and/or criterion referenced data that such skills have indeed improved, but also to submit convincing evidence that students have also changed attitudes and transferred reading processes to their independent, narrative, content reading as well as to individual lifestyles. Additionally, convincing, visible evidence should be available to show that teacher attitude, knowledge, and classroom teaching performance have changed.

Some of the important characteristics of staff development workshops, projects, and/or institutes which will lead to student and teacher improvement are that they: (1) are based on input from the teachers, (2) are concerned with transfer into the classroom, (3) do result in a multiplier effect (i.e., prepare a "volunteer" cadre whose responsibility will be to train other teachers), (4) do include administrators and supervisors who must be knowledgeable and supportive if success is desired, (5) are conducted on schooltime, and (6) do not attempt to go too far, too fast.

For example, one suggested approach for content reading process/product staff development might include the following: (1) During the first year, vocabulary process/product teaching would be the major emphasis; this first year would be divided into three parts—i.e., the first part of the year would be concerned with vocabulary process/product input using relevant materials, the middle of the year would be devoted to developing and piloting classroom vocabulary materials, and the last part of the year would be assigned using the materials with one class or a small group within a class—with feedback sessions integral to all three phases; (2) during the second year, vocabulary instruction would be expanded to more classes and students with consequent refinement and improvement; also, comprehension process/product knowledge and performance competencies would evolve as did vocabulary during the preceding year; (3) vocabulary and comprehension process/product instruction would be expanded and refined during the third year; additionally, study skills process/product knowledge and performance competencies would be instituted using the same format and management as in the preceding 2 years; and (4) the fourth year would be assigned to maintaining, refining, and extending content process/product teaching.

In summary, teacher knowledge and performance competencies are the key ingredients for improving reading at the intermediate/school levels. Therefore, the quantity and quality of pre- and inservice education is crucial to the improvement of education as the world advances in age and experience. In the words of Plutarch ". . . while time takes away everything else, it adds wisdom to old age. Even war, that sweeps away everything else like a winter torrent, cannot take away education."

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CHAPTER V—SUMMARY

The author states that the reading skills taught in the elementary grades are not sufficient to meet the demands of the more sophisticated material used in grades 7–12 and, consequently, reading instruction should be provided to all students, by all teachers, in all subjects at each grade level.

This paper recommends a specific set of priorities relative to the nature and use of materials, personnel, financial resources, and staff development.

The major priority stressed throughout the manuscript is that all resources be funneled towards helping the subject-area classroom teachers to teach appropriate reading skills along with the content of their courses.

CHAPTER V

Reading Programs Grades Seven Through Twelve

by Harold L. Herber
Professor of Education
Syracuse University
Syracuse, N.Y.

Introduction

Reading instruction beyond elementary school is considered either unnecessary or useless by many people for one of two reasons. First, there are those who believe that if students have not learned to read well by the time they enter junior and senior high school, they will never learn to read well at all. Such thinking is not supported by a substantial body of research and experience. Even so, such thinking influenced legislation related to the National Reading Improvement Act, severely limiting funds for support of postelementary reading instruction.

Second, there are those who believe that the reading instruction provided in the elementary level is sufficient for a lifetime of reading. No further instruction is needed. The answer to the reading problems of secondary school children and adults is better reading instruction in elementary school, not the development of reading programs in secondary schools. This view, also, is not supported by evidence from experience and research in schools.

This paper presents a position which is opposite to the two just identified. Reading instruction is an essential part of students' education through their entire schooling experience.

Philosophical Basis

Curriculum experts in our public schools have labored long and hard to create courses of study which carry students from simple information to complex understandings as they progress through the grades in each of the subject areas. The printed materials through which the information and ideas are conveyed are increasingly complex and sophisticated. Obviously, if students are going to be successful in studying these subjects, they have to be shown how to read these materials successfully at each of the levels of sophistication.

One of the frustrations experienced by both students and teachers is that the reading skills which are taught in elementary school are not sufficient to meet the demands of these more sophisticated materials. Most of the materials through which students learned their reading skills were comprised of simple, relatively unsophisticated stories. Little technical vocabulary from content areas was required in order to read with understanding. Ideas were presented in simple, rather straightforward style. Reading selections were short and relatively uncomplicated. None of these characteristics describe materials which students are required to read beyond the elementary grades.

Students do not become proficient readers of increasingly sophisticated material merely because their teachers wish they would. Some kind of structural intervention is necessary to help students to develop these necessary levels of sophistication in the application of reading and reasoning skills. They must learn, through instruction provided by their teachers, how to adapt their skills to the demands of the materials they encounter as they move from subject to subject and from grade to grade. And they must learn new skills which are implicit in new materials never before encountered.

The most efficient, economical, and logical way to provide this instruction is through the actual materials which impose these demands on the students: information sources used in the various subjects taught in grades 7 through 12. The most efficient, economical, and logical place for this instruction to be provided is in each subject area classroom as the students are studying the required curriculum. The most efficient, economical, and logical use of personnel for such instruction is to have the regular subject-area teachers teach the students how to read the required materials as they teach them the content of the subject they are reading about.

Focus of Concern

Given the nature and the location of the reading instruction recommended for the 7–12 program, it is reasonable to think that it would include all of the students enrolled in those grades. And it does, when the conditions are right.

The primary condition that must be right in order to have such a program is that the subject-area teachers have the knowledge and experience necessary to teach reading along with the content of their discipline. Unless the teachers have this competence, such a program cannot exist. It cannot operate by having reading teachers take over content-area classes to provide periodic reading instruction or by sending students to reading classes to learn how to read "content-type" material.

Students who are the focus of concern for this paper are any whose interests, motivations, and achievement do not correspond with the school's expectations and requirements and—as a result—are not doing as well as they should in school. This, usually, includes most students in any school. As teachers gain experience in providing this instruction and as students derive benefit from it, it will become clear that there are some students who need additional reading instruction to help them with their severe reading problems. Though relatively few in number, they cause a disproportionate distress for themselves and their teachers.

Such students who are in need of special, remedial instruction by reason of the severity of their reading disabilities, are *not* the direct concern of this paper. Though they participate in the content courses where reading instruction is provided, it is not sufficient for them.

There is another group of students who are excluded from the direct focus of this paper: Those who are in need of special, enriching instruction by reason of their superior academic ability and achievement. Such students usually are enrolled in the regular content-area program and, accordingly, are exposed to the reading instruction which is part of that program. However, such students undoubtedly have already surpassed the level of sophistication at which most of the other students are being taught. Thus, enriching instruction has to be provided for them to make maximum use of their potential.

In summary, then, the focus of this paper is on ways to help students who are neither so superbly endowed nor so severely handicapped educationally as to require special instructional programs to deal with their reading needs.

Where We Ought To Be

Knowing where we ought to be with programs at this level enables us to gain a better perspective on where we are and the kinds of action we need to take in order to improve our position. This section deals with the question of where we ought to be in our reading programs for grades 7–12 by discussing program issues, instructional issues, and teacher-education issues.

Program Issues

Reading instruction should be provided to all students, by all teachers, in all subjects at each grade level, in grades 7 through 12. Anything less is a compromise and less than the best. Few would disagree that such a program should be our objective. There is, however, disagreement as to how the objective should be accomplished and what kind of instruction should be provided with the program itself.

There is the question of when such a program should be established. The position of this paper is that such a program should be initiated *before* any remedial, corrective, or developmental reading program which is separate from the content-area classroom instruction. Separate reading classes should be formed only as there is evidence of a need to supplement for some students the reading instruction which is being provided in the regular subject-area classes.

Unfortunately, this program is usually referred to as "ideal." While acknowledged as what really should be done, the opposite is usually applied. The first step in program development usually is to establish separate classes for remedial, corrective, and developmental reading instruction. Reading personnel are therefore so obligated to their work with students in those classes that they never have time to work with subject-area teachers and show them how they can provide most of the reading instruction that students need right in the regular classroom, without jeopardizing the content of the course.

The kind of program advocated in this paper involves a different set of priorities relative to the nature and use of materials, personnel, financial resources, and staff development. Rather than spending money on special equipment and materials, it is spent on buying time for teachers to learn how to teach reading along with the content of their courses, through the textbooks normally used in their courses. Such an expenditure of money is the best investment a district can make toward improving the reading achievement of its students. Money is used to buy the time of reading teachers to work with subject-area teachers rather than with relatively few students in their reading classes. Through the content teachers, the reading staff reaches many more students than they ever would reach were they to remain only with their reading classes. The multiplier effect works well in reading programs.

The priority placed on the use of all resources is that their expenditure be for the purpose of helping subject-area classroom teachers to teach appropriate reading skills along with the content of their courses.

This is the opposite of what is usually done. Expenditures of resources are frequently made according to the political consideration of *visibility*. Whatever will produce the most visible evidence of a district's concern for the reading needs of its students often is what is purchased and placed in a prominent location. Even though there is very little evidence to validate the continuation of separate reading instruction for students in grades 7–12 or the relative efficacy of most of the machines and equipment with which reading laboratories are supplied, most of the money available for reading instruction continues to be poured into such labs and equipment. Meanwhile, the area of greatest need and greatest opportunity remains unserved: The subject-area teacher and the subject-area classroom.

The problem, as indicated, is one of visibility. Reading instruction becomes decreasingly visible the more successfully it is integrated with the teaching of the course content in the subject areas. The object of reading instruction in content areas is to integrate completely the teaching of reading and course content so they are taught simultaneously. When done skillfully and effectively, such instruction appears to be "nothing more" than just good teaching of the course content—if you don't know what to look for in that instruction. Therefore, a program of this sort may cause political problems in communities that are concerned about the reading performance of its students, unless the public is educated about the objectives, organization, and operation of the reading program.

Professional and public support is absolutely essential to the success of this program. Time and money must be provided to help the teaching staff develop the skills to teach their students how to read what they are required to read as they read it in their subjects.

Instructional Issues

There are three factors to consider in programs which emphasize reading instruction in content areas: (1) The subject matter of the curriculum; (2) the information sources which students must read; (3) the reading/reasoning skills by which the students read the information sources to learn the subject matter. Whenever students are required to read information sources in a content area, teachers integrate the teaching of skills with teaching of content so the two are taught simultaneously. Neither is taught separately from the other whenever the assignment is to read in the textbook.

The question usually asked is, "What reading skills should the content teacher teach?" The answer is simple. Since "content determines process" the reading skills which are taught are those which are implicit in the material being read. The teachers carefully examine the reading assignment in light of the content objectives they have established for their lessons. They determine that the material must be read a certain way if the ideas the author is presenting are really to be acquired by the students.

They then proceed to teach the students how to use that particular skill or reading process as they read the assigned material in search of those ideas. Thus, content determines process and both are developed simultaneously.

This procedure is in contrast to establishing first some arbitrary list of reading skills which should be taught in the content areas and setting about to teach them through whatever material seems to be handy at the time. This procedure is based on the notion that for purposes of reading instruction, process determines content. Such a view separates reading and content and establishes an artificial dichotomy that most subject-area teachers reject.

Instruction in this program requires more showing than telling, more guiding than assigning, more interaction than isolation. Teaching, after all, is the process of showing the students how to do what they came to the teacher to learn to do. What makes teaching so incredibly difficult or incredibly easy is precisely this requirement of "showing how." If the "showing how" is faced directly and an effort made to meet the responsibility, then teaching is a very difficult job; but if the responsibility is ignored, then teaching is very easy. Telling others what to do is not very difficult; showing them how to do it, is.

As it relates to reading, showing students how to read content-area materials means to guide carefully their reading of the basic information sources so they learn the process that is implicit in the content and, at the same time, the content itself. Guiding is different than assigning, you understand. Identifying what should be read through an assignment is not really teaching the students how to read the material; guiding them as they read it so they learn both content and process, is.

Learning new ideas and skills is enhanced when students have an opportunity to make use of both. Successful reading programs in the content areas make frequent use of well-structured, small, discussion groups as part of the instructional format. Students have opportunities to interact as they discuss the ideas they are studying and to make use of the reading/reasoning skills they are learning. Particularly the small-group interaction is important as students are being shown how to read their assigned information sources. As they interact and apply the reading/reasoning processes, they discuss what they are doing, how it is working out for them, and what they are finding out about the subject. This interaction reinforces their understanding of both the content of the lesson and the reading processes implicit in that content.

Teaching the content of the course simultaneously with the process by which that content is learned requires very careful use of printed materials. Obviously, the materials to be read need to contain the basic information necessary for developing the important concepts in the subject. This usually is found in the regular textbook, plus other information sources.

And the material should be of reasonable difficulty for the students who are in that course. If the content of the course is new to the students enrolled in the course, the textbook will be too difficult for the students to read independently. They will need instruction in its content and in how to read it. If they don't, then one should question whether they should be in the course since they already know what the teacher is supposed to teach them. On the other hand, the material should not be written at a level of sophistication more appropriate for college or graduate school than for students in junior or senior high school. Common sense must be applied when information sources are selected for use in content areas. But one must be very careful that one does not fall victim to the many myths about readability. Subject area textbooks almost always will be shown to be "too difficult" for the students for whom they are intended to be used, according to most readability formulas. As indicated above, this is as it should be since, if the texts were not too difficult, it would mean that the students already knew the subject. If the teacher shows rather than tells, guides rather than assigns, students can then make good use of the difficult materials to learn both content and process.

Instruction in this program should accommodate the needs of individual students without losing the value of having individuals interact with one another. It is very difficult to completely individualize instruction in a content area, but one can approximate individualization by having students work together in groups on the same assignment. As students interact with one another under the guiding hand of the teacher who structures the group interaction, then the needs of individual students can be met in the small groups. Completely individualized instruction tends to isolate students for solo activity. The values of interaction are lost. Particularly since the effort is to teach both content and process, the interaction is of critical importance because it is through discussions, testing of ideas, modification of opinion, gathering of evidence for the ideas being developed, that the learning of the content takes place. The reading and reasoning skills which underly the interaction are those which we want our students to learn. What better way to learn them?

Teacher Education Issues

In preservice education, methods courses should be taught which integrate instruction in the content of the discipline with instruction in how to teach reading in the discipline. These courses should be taught in the same way the professors say that the students ultimately should teach their own courses. Professors in the field of reading can join forces with professors in the subject-area disciplines in the development of such methods courses. If teachers-in-training experience in their own courses the teaching methods they ultimately are to apply themselves, they will be better able to translate what they learn into practice in their own classrooms.

Inservice education is becoming an increasingly important issue. Reduction in available teaching positions has brought more stability to the faculty in most schools. The need for constant professional renewal of faculties has, thus, become a more visible and important issue.

Coupled with this cause for continuing inservice education is another: The apparent reading problems of students in grades 7–12 in most schools. In spite of the millions of dollars spent in the 1960's for reading, relatively little was done to make certain that reading in the content areas became a natural and accepted part of the curriculum expectations. Rather, it was thought that if enough labs were organized and enough students run through them, our reading problems would be solved.

Obviously it did not work and when the money disappeared, the problem remained. Now it is clear that the needs of students can be met only if instruction is provided where and when they need it: in the content-area classrooms as they read what they are required to read. But this means a wide-ranging effort to educate teachers in how to provide this kind of instruction. It means that practical instruction of teachers must be provided; not a lot of theory *about* reading but a lot of practical suggestions on how to help students read what they are required to read.

Extended time is needed for teachers to learn and to expand on ways to meet their students' reading needs. Successful programs have made provision for teachers to be released from their instructional duties for a given number of school-days (5, 7, 10, or more days) by use of substitutes. During those days, the released teachers participate in workshops which show them how to provide reading instruction as an integrated part of their instruction in the content of their subject. This seems much superior to after-school, short-term meetings on the teachers' "tired time." In the latter, relatively little is accomplished which has immediate and direct application to the classroom instruction. In the former, teachers have enough time to stay with a topic, develop an understanding of how specific procedures work with students in their subjects, produce materials which will aid them in guiding students' understanding of content and proceses. Trying out methods and materials with their students, in between some of the full-day sessions, also is useful. The teachers return to the next workshop with practical questions to ask and experiences to share. The whole procedure is stimulating and productive.

These full-day workshops, during the school year, provide the means for showing teachers how to apply methods and materials related to reading instruction in content areas. They provide opportunity for giving feedback to teachers, both from students and fellow teachers, on how well they are applying the ideas they are learning. They provide productive teacher education which school districts can and should afford.

Where We Are

The question of where we are with this kind of reading program has to be answered philosophically and practically.

Philosophically

There is an almost universal agreement that the major emphasis on reading instruction in grades 7 through 12 should be in the content areas. The differences which exist center on what is meant by "teaching reading in content areas." To all interested personnel, it is a descriptive label. But there are at least three different views about what the label describes.

Location.—There are those for whom the label refers to the location in which the reading instruction takes place; that is, reading is taught *in* the content areas. To such people, there is very little difference between the reading instruction provided in a reading class and the reading instruction provided in a content-area class. The purposes, procedures, materials, and frequently the personnel, are the same. Often the reading personnel go into content-area classrooms to provide the reading instruction on a periodic basis. The subject-area teacher observes the lesson, hopefully, but usually does not take part in any of the instruction. The hope is that the content teachers will pick up ideas about teaching reading to incorporate in their teaching of the regular curriculum.

Unfortunately, this interpretation of "teaching reading in content areas" establishes a division between reading skills and the materials to which they ultimately are to be applied. Reading instruction becomes an interlude—pleasant or otherwise—in the regular curriculum. Time is taken away from the study of the curriculum in order to study reading. The reading teacher comes into the class to teach reading while the content teacher stands aside. The regular text materials are set aside while the students practice reading skills in other materials. It may be that the skills being taught are those which are useful in the subject being studied by a given class, but the skills are being taught in materials other than the text normally used in the class. All of these actions and conditions signal to the students and to the content teacher that reading and content are to be studied separately. Based on that very clearly demonstrated point, when the reading teacher leaves the content-area classroom, the subject-area teacher returns to teaching the content and leaves reading instruction to await the return of the reading teacher.

Materials.—To some people, "teaching reading in content areas" refers to the materials in which the instruction is given. Information sources which are characteristic of those found in the various content areas are used for reading instruction. This instruction is provided by the reading teacher, usually in the reading class, to students identified as having reading difficulties. Often the reading teacher will try to coordinate this instruction with what is occurring in the students' courses so that as s/he is teaching the reading skills in these courses, the content being read deals with the same concepts that students are studying in their regular classes.

When used to supplement the reading instruction which can occur in the regular classroom, provided by the content-area teacher, this version of teaching reading in content areas can be helpful. But if it is the *only* effort, it is fraught with danger. First, it relieves the content teachers from the responsibility of providing reading instruction to the students in their classes. Second, it signals to both students and teachers that reading is what you worry about in reading classes, not in content classes. It establishes and reinforces a division between reading and content to which the reading skills should be applied.

Location and materials.—There are some to whom teaching of reading in content areas refers to both location and materials. That is, reading instruction is provided *in* the content-area classes with the regular information sources used as the vehicle for teaching the appropriate reading skills as well as the course content. The reading skills taught are those which are implicit in the materials being read which, in turn, were identified as necessary for the study of the course content. The instruction is provided by the regular content-area teacher. Everything signals to students and teachers that reading is a major means by which the content is learned; that there is not a dichotomy between the content of the course and the reading process by which the content is learned.

It is this meaning for "teaching reading in content areas" which is the basis for this position paper. As of now, this view is the one most supported in theory but least supported in practice.

Practically

Some progress has been made in establishing programs in schools which are of the type advocated in this paper. Education has passed through the stage in which subject-area teachers were admonished to provide this instruction but were not supported in their efforts or checked on to see if they made the effort. As a result, teachers quickly learned that the admonishing was only an empty gesture that could be ignored—and it was.

Education is now at the stage in which subject-area teachers are expected to provide this instruction but are given little of the preparation necessary for providing it. Typical of this state is the administrator who examines the district's reading scores in the spring, expresses concern at their insufficiency, and announces grandly that all teachers in all subjects will provide reading instruction in their courses beginning next fall! S/he then resists expenditures for staff development programs and/or appeals for more time to prepare teachers for this instruction, saying that it is their own responsibility to be prepared to do their job and not the district's to get them ready for it. Many "paper programs" have been organized by such procedures. Written descriptions of what is to be done are circulated as representations of the district's program; but any resemblance between the written description and what actually is going on in the classrooms is purely coincidental.

Happily, there is a perceptible shift in education to the stage in which school personnel are developing an understanding of what constitutes reading instruction in the content areas. This understanding is leading teachers and administrators to work cooperatively to gain adequate preparation for their respective roles in such a program and to help the teachers apply their new knowledge and skills in their own classes. In such schools, one finds in operation the sequence of activities outlined below under "program development."

How To Get There From Here

To get from where we are to where we ought to be requires specific actions with respect to program development, staff development, and instructional development.

Program Development

To establish a reading program of the kind which is advocated in this paper, there is a sequence of understandings and actions which should be followed as closely as possible. Variations will be necessary depending on local circumstances; but too many variations should not be allowed. Particularly, one should not allow item 7 to be placed first in consideration for action. If it is placed first, items 1 through 6 rarely will be firmly established in grades 7–12.

For convenience sake, these understandings and actions are presented in list form:

1. Understand that more change comes from instruction than from admonition. Coercion without preparation and persuasion will produce unproductive, paper programs. The education of both teachers and students in this program must be based on that understanding.

2. At least one person in a school must have a clear understanding of the difference between reading instruction in reading classes and reading instruction in content-area classes and the relative value that each has in the total program. That understanding must become the basis for the program's development. If a district lacks that initial understanding, the probability is very high that it will develop the traditional program of a few reading classes and little else.

3. Involve the strongest teachers first. Select teachers for the initial education in teaching reading in the content areas who can become teacher leaders, can establish this kind of instruction in their own classes, and can serve as an example to other teachers in the district.

4. With the strong teachers setting the example, open an inservice education experience to all *interested* teachers. Limit the staff-development opportunity to such teachers until their needs are met. Only then should the district be concerned with teachers who resist the idea of teaching reading in their content areas. By then, their number will be relatively few, with most having been persuaded by the good example set by the strong teachers and their colleagues.

5. Educate the board of education and the public as to the nature and purpose of the program as soon as participants reach sufficient numbers to be making an impact on the educational program in the schools. Of course, education of the public is a continual process even from the beginning, if you want to have support for the program. But there is a particular need for this education when the teachers begin to provide the instruction appropriate to teaching reading in their subjects.

6. Constantly consolidate the gains that you make in the development of instructional techniques and materials by encouraging a sharing of both among the faculty.

7. Study the need for separate reading classes and organize them as the needs of students dictate. But remember that these classes should be organized *after* the main thrust of the program has been established so you can determine which students really do need the *extra* help.

Staff Development

What should be included in the staff development is identified in the "Where we ought to be" section on page 48.

Again, there is a sequence to be followed if this kind of program is to be implemented successfully.

1. Educate administrators and supervisors in how to teach reading in the content areas so their interaction with participating teachers will be informed and supportive.
2. Work carefully with the initial group of strong teachers who will become resource teachers, or "teacher trainers."
3. Identify *eager* volunteers who will take inservice workshops with the teacher trainers during the school day, on released time (arranged for by the supportive administative staff).
4. Provide for followup sessions so participants can react to their experiences, secure feedback on same, and can study variations and modifications developed by their colleagues and others who are involved in the same instruction.

Instructional Development

What should be the content of the inservice, staff-development experience for the participating teachers is only intimated in this paper (p. 51) because of space limitations. The content of the inservice experience should be a thorough, practical, guided study of how to teach reading in the content areas. There should be opportunity to observe such instruction, opportunity to demonstrate such instruction and opportunity to receive feedback on all of this. Sources identified at the end of this paper contain the content which should be included in such workshops.

Resources

Professional Texts

Each of the following texts deals with reading instruction in content areas in one way or another. Even though some reflect a different definition of teaching reading in the content areas than the one presented in this paper, they contain good suggestions for ways to develop reading skills through the use of content materials. By applying those suggestions to content materials required in the content classes, the program in this paper can be supported and the students derive benefit from the instruction. With the distinctions made in this paper clearly in mind, you can be selective in your reading of all these sources and develop a set of recommended procedures for your teachers which will allow them to teach reading skills simultaneously with the course content in the regular subject-area classroom.

Aukerman, Robert, *Reading in the Secondary Classroom*, McGraw-Hill, 1972.

Burmeister, Lou, *Reading Strategies for Secondary School Teachers*, Addison-Wesley, 1978.

Herber, Harold L., *Teaching Reading in Content Areas*, Prentice-Hall, 1978.

Karlin, Robert, *Teaching Reading in High School*, Bobbs-Merrill, 1977.

Laffey, James (ed.), *Reading in the Content Areas*, IRA, 1973.

Robinson, H. Alan, *Teaching Reading and Study Strategies*, Allyn-Bacon, 1978.

Shepard, David, *Comprehensive High School Reading Methods*, Charles E. Merrill, 1977.

Students' Material

Each of the following sets of material helps students develop reading skills in the content areas in one way or another. Some are useful in the regular content-area classes; others more useful in the followup reading classes for reinforcing practice on reading skills related to content-area materials. A careful examination of the materials will establish the best place to use each set.

Be A Better Reader, Prentice-Hall, 1970.

GO, Reading in the Content Areas, Scholastic Magazines, 1975.

Read Better, Learn More, Ginn, 1973.

The Reading Line, Pulaski, 1970.

Staff-Development Programs

Each of the following sources comprise, or contribute to, an inservice education course for developing content-area teachers' competence to teach reading along with the content in their subjects. Each reflects a different definition of reading instruction in the content areas. A careful examination of the promotional materials for each will establish which is consistent with your own definition and/or the one on which this paper is developed.

Teaching Reading in Secondary Schools, The Film Library, 1455 East Colvin Street, Syracuse, N.Y. 13210.
A set of films and manuals comprising a fifteen-session course.

Reading Across the Curriculum, 1977, TRICA Consultaants, Inc., 15 Braeside Drive, Homer, N.Y. 13077.

Manuals, texts, and videotapes comprising a multiphased, competency-based, staff-development program for all subject area teachers; includes manual for facilitators of the program.

Teaching Reading Skills in Content Areas, 1974, Sandpiper Press, Inc., P.O. Box 19225, Orlando, Fla. 32814.

A guide to the construction of student exercises to accompany textbook materials in the content areas; comprised of a basic manual which is keyed to professional texts on reading in the content areas.

Teaching Content Area Reading Skills, 1976, Charles E. Merrill Publishing Co., Columbus, Ohio.

A modular preservice and inservice program for content teachers, focusing on the development of 10 specific competencies.

Teaching Teen Reading Series, 1974, Ohio Department of Education, Columbus, Ohio.

A set of six manuals for content teachers, each of which deals with a specific aspect of teaching reading in the various subjects.

CHAPTER VI—SUMMARY

The author states that there is a decreasing need for remedial or beginning reading for adults and more need for developmental reading or reading improvement at the adult and college level.

This paper presents the proposition that hard core or total illiteracy affects only a very small percent of the population, but rising demands for improved reading skills affect more if not all of us.

The author looks at the present state of reading abilities and the demands that society makes on the modern citizen.

Information is given on current college and adult training in reading plus some information on the training of instructors for those courses.

The paper concludes with recommendations on how to achieve more reading instruction and better qualified instructors.

CHAPTER VI

College and Adult Reading

by Edward Fry
Director, Reading Center
Rutgers University
New Brunswick, N.J.

It is the main thesis of this paper that the improvement of advanced reading skills at the adult and college level is a major responsibility of society. The emphasized need for remedial or beginning reading instruction for adults is no more important than the often overlooked need for developmental reading or reading improvement. The rising demands for improved reading skills affect all of us, while hard core or total illiteracy affects a crucial but small percentage of the population.

In this paper we will discuss the current state of adult reading capabilities and the reading demands that our society places upon the modern citizen. Information will be given on current college and adult training in developmental reading and reading improvement courses as well as information on the training of instructors for these courses. The overwhelming need for more opportunities for adults to take reading courses and for qualified instruction within these courses will be emphasized. Some recommendations will be made on how to accomplish these goals.

Where are We in Respect To Improving the Overall Reading Levels of Our Adult Population?

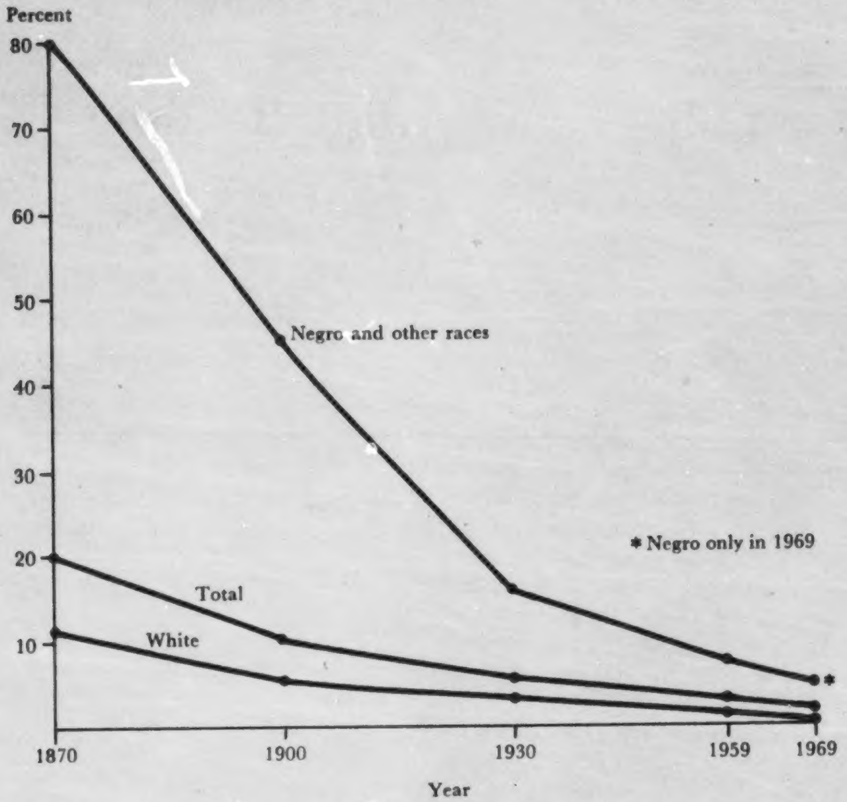
Most adults and college students can read at reasonably good reading levels. Evidence for this is demonstrated through national census reports of literacy, State and national testing programs, book and newspaper usage and the application of readability assessments to reading material.

A Look at the Literacy Levels Shows Us

There are many ways of looking at adult reading ability. The literacy levels is one of them. The 1969–70 U.S. Census, which has been challenged as an unreliable estimate of literacy, nonetheless surveyed 50,000 households. Persons 14 years of age and older who had completed the sixth grade were asked about their ability to read and write a simple statement. UNESCO uses a similar definition of illiteracy. This survey showed that 1 percent of the population was illiterate (1.4 million). This is a dramatic improvement from the 1959 figures which found 2.2 percent (2.6 million) illiterate. For historical purposes this also compares favorably with a long-term trend from the 1870 estimate of 20 percent. See figure 1. Further proof of this trend is that 6.8 percent of the illiterate groups were in the 65 years or older group. See figure 2. While this is heartening proof that the public education is at least providing minimal reading skills, we should not abandon those 1.4 million illiterates who are still with us, or underestimate the extent of their problem. However, it does mean that in the future a major job of reading instruction must be with the semi-illiterate adult.

The census definition of literacy has often been criticized as too lenient because it is based upon an assumption that the years of education equal the

FIGURE 1
PERCENT OF ILLITERACY IN THE U.S. POPULATION
(U.S. CENSUS BUREAU)



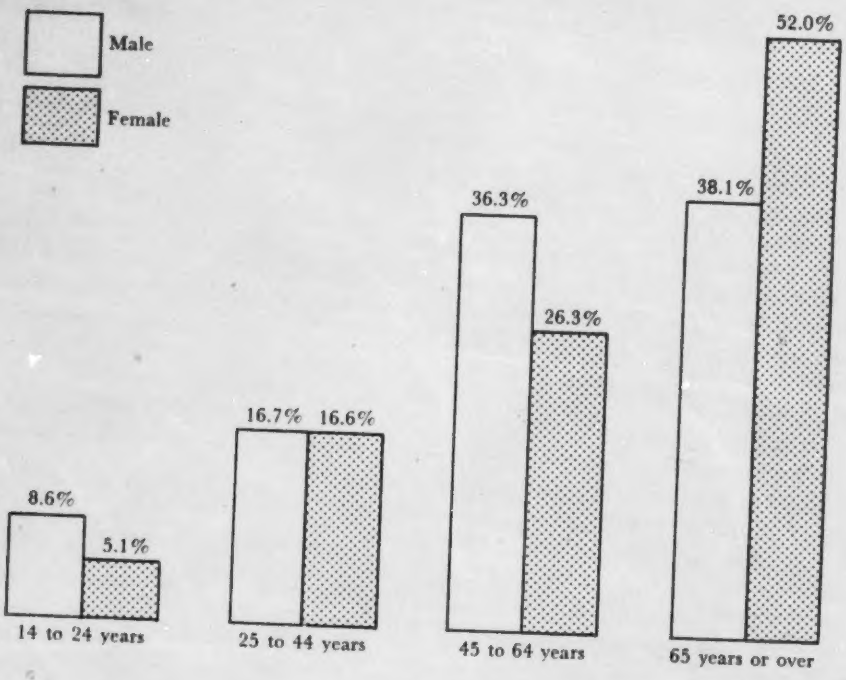
degree of literacy attained. If we look at the adult population (over 25 years old) we find that 5 percent, or approximately 5 million persons, have less than 5 full years of education. Thus, by this definition, these persons could be considered illiterate. Even so, we are still only talking about 5 percent of the adults. What about the other 95 percent who are not categorized as to their reading ability or included in this figure?

A considerably more stringent definition of illiteracy was advanced by the Harris and Associates poll which in 1970 asked a random sample of citizens literacy questions about filling out income tax forms and job applications. They estimated from these results that there were approximately 18½ million illiterates. However, many adults plead illiteracy when it comes to income tax forms and seek professional assistance. Hence, the *U.S. educational establishment must lift its sights from mere basic literacy and add to our goals superior reading skills for all adults.* Let us look at the results of standardized testing for a moment.

A Look at College Board Scores Tells Us

In 1976 the College Entrance Examination Board reported that Verbal Scores on the Scholastic Aptitude Test declined again for the 13th consecutive year. In 1963 a mean verbal score was 478. In 1975–76, the score was 431. This is nearly a half of a standard deviation lower, which is quite a significant change for so large a population. In 1975–76, the test was taken by approximately 1 million of the 3 million college seniors. The board has a commission seeking reasons for the drop and is offering no

FIGURE 2
AGE OF ADULT ILLITERATES, NOVEMBER 1969 (U.S. CENSUS BUREAU)



explanations at this time. However, recent studies have shown that the test is not getting more difficult and that it is retaining its validity to predict academic performance in the freshman year of college.

One hypothesis is that there is a different socioeconomic level student who is now applying for colleges that require the SAT. Many other studies, such as the National Assessment of Educational Progress, have shown a definite and strong correlation between lower socioeconomic levels and lower reading achievement scores. We do not wish to make a case that lower SAT scores suggest a strong need for teaching more reading courses in college, but that evidence certainly does not detract from a probable need.

Secondary schools are notably influenced by the demands of college curriculum. Not only is their curriculum influenced by entrance requirements, but even their electives tend to follow collegiate trends. It would be a tremendous influence on the Nation's secondary schools if colleges truly gave reading a place in the academic spectrum. Surveys show that reading is not often taught in secondary schools other than some remedial reading courses. Evidence of public dissatisfaction with the state of secondary level reading instruction is found in the recent action by the State Board of Education in New Jersey which requires two reading courses (6 credits) for every new secondary teacher after 1977.

A Look at Standardized Testing Tells Us

Major achievement tests give us a vague estimate of the reading ability of 12th graders expressed in grade level scores. Fifty percent of the 12th graders read at 12th grade level (they read grade-level 12 material at the beginning of the 12th grade or below). This is not a criticism of the public schools as some ill-informed newspaper reports sometimes deem, but rather simply the definition of 12th grade reading scores (it's a mean score; half are above and half are below). However, if we use this same type of score to look at the 12th graders, we find that about 79 percent read at the 9th grade level or above (this is based on an average of STEP, MAT, and CAT norm tables). Put another way, 20 percent of the 12th graders read below 9th grade ability. Since this does not include the many high school dropouts, presumably the figures could be an even higher percentage.

As a matter of fact, the 1970 census found that among adults 25 years of age and older, 5 percent had under 5 years of schooling, 14 percent had under 8 years of schooling, and 45 percent had under 12 years of schooling.

The trouble with using normed tests when describing the population of the United States is simply that by definition 12th graders read 12th grade, or at least the median student does, and the normal distribution curve spreads the rest of the students above and below the grade level. However, this failure to understand that the normal distribution operates on nearly all academic achievement, such as reading scores, has led to a lot of misunderstanding and needless criticism of the public schools. We cannot say often enough that half the population are below average readers because that is the definition of an "average"; it is not the fault of the education system. Furthermore, without appearing too ridiculous, we must point out that 1 out of every 4 persons is in the lowest 25 percent and, worse yet, 1 out of 10 is in the bottom 10 percent. A student at the bottom 10th percentile can be assigned a grade level and that is where some of the trouble starts.

A Look at Criterion Testing of Comprehension Shows Us

Grade level norms are just one useful way of describing achievement. Another way is by so-called criterion referenced tests. These measures state achievement in specific criterion or actual reading tasks. For example, the National Assessment of Educational Progress (1974) gave reading test items to a statistical sample of the population. They sampled school-aged children and 1,935 young adults aged 26 to 35. The tests are not "normed" but they report percentages on typical items. For example, see the following items.

> Draw a horizontal line near the bottom of the page.
>
> Draw two circles approximately 1 inch in size above the line which just touch each other and the line.
>
> Draw another circle of the same size above the first two which just touches both.
>
> Now connect the centers of the three circles with straight lines.
>
> Draw a vertical line from the top of the triangle in the picture to the line you drew first.

The results are given by geographical region in percent of adults getting the item correct:

	Percent
Southeast	42
Central	64
West	65
Northeast	65

It is deplorable that approximately one-third of the population sampled could not correctly respond to this item. In this, and most other items, the Southeast region scored more poorly than the rest of the country. However, the report made this interesting comment:

> "Southeast young adults, moreover, fared even less well than any of the school-age groups in the Southeast."

It is possible that increased Federal funds flowing to the Southeastern public schools since 1972 are beginning to pay off. This type of criterion test information shows a definite need to improve the reading comprehension of many adults and supports the thesis of this article. In the future, the work of the reading profession is going to be with the less remedial type of adult readers.

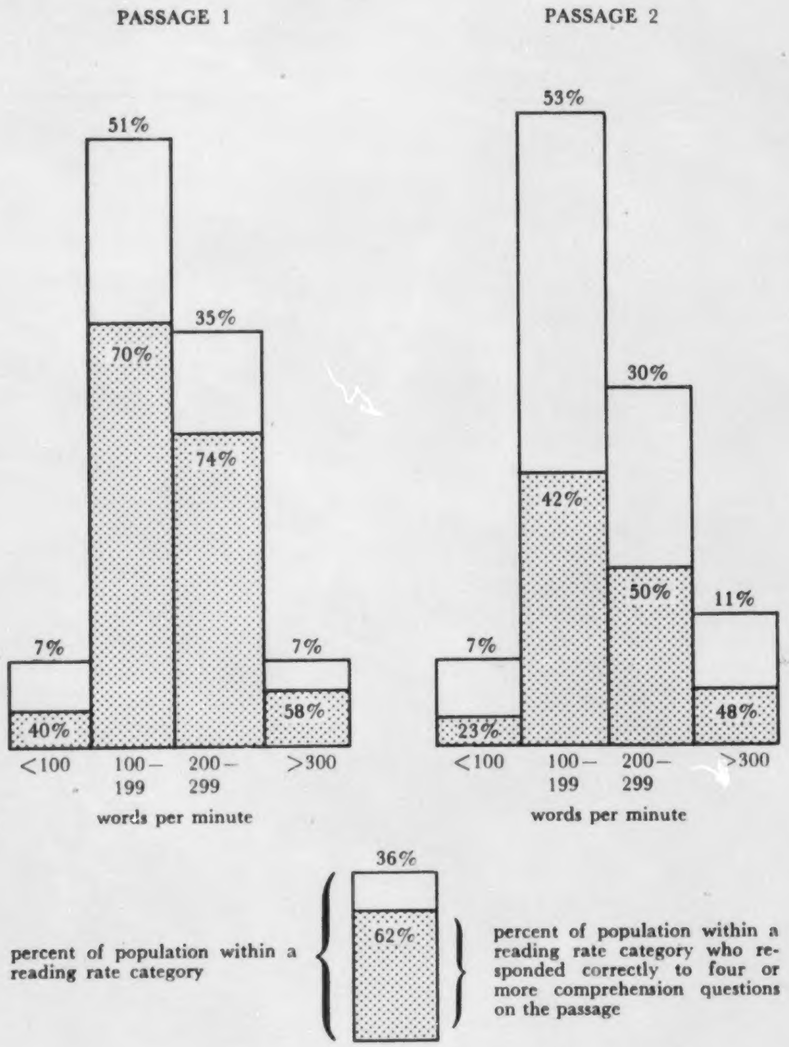
A Look at Criterion Testing for Rate of Reading Shows Us

The National Assessment (1972) also gives us some interesting factual information about reading rates. On a Reader's Digest story that had 10th-grade readability, the 17-year olds read 195 words per minute and young adults read 188 words per minute. The young adults were slightly slower. However, the young adults demonstrated better ability to comprehend four or more comprehensive questions correctly with 68.8 percent versus 66.7 percent for the 17-year olds. On reading a more difficult passage, a sociology text with college-level readability, the rates were nearly the same (195 and 186 words per minute) but both groups dropped considerably in comprehension with the adults doing better than the 17-year olds with 31 percent of the 17-year olds and 43 percent of the adults reaching criterion.

These percentage comprehension scores should be read with caution as they are really tally scores and, hence, are only useful in one comparison—the comparison between the 17-year-old group and the adult group. However, the reading rate scores, which are mean raw scores, are much more useful since that is the manner in which reading rate is usually reported. Hence, with some degree of confidence we can state that the reading rate of 17-year olds and young adults is about 190 words per minute. This seems a modest enough figure and one which many reading specialists feel can be significantly improved with training.

It is interesting to note in figure 3 that the low group had both slow rate and poor comprehension and that the above average group (200–299 words

FIGURE 3
READING RATE OF YOUNG ADULTS ON 10TH GRADE MATERIAL (PASSAGE 1) AND COLLEGE MATERIAL (PASSAGE 2) WITH COMPREHENSION ESTIMATES
(NOTE QUALIFICATIONS ON COMPREHENSION SCORES IN TEXT)



per minute) had better comprehension than the below average group. This tends to belie the old myth that slow readers comprehend more. However, the very fastest readers (above 300 words per minute) tended to lose some comprehension. We could conclude from this data that the typical adult reads slower than he should.

A Look at Criterion Testing of Vocabulary Shows Us

The size of an adult's reading vocabulary has been an interesting subject of study for decades of educational researchers. There is little agreement among studies because of the differences in methodolgy. Hence, we find studies saying average adults can read 24,000 words and other studies showing that they can read 56,000 words. Part of the trouble is in defining what is meant by a word: Are "run, runs, running, and ran" one word or two words or four words? Another problem is in multiple meanings (semantic count): If a student knows the meaning of *run* to the store, does he know the meaning of *run* on the stock market?

In a study done recently by Harold Dupuy (1974) of the National Center for Health Statistics, which was studying the noninstitutionalized population of the United States, vocabulary was defined very narrowly as "basic words." To find "basic words" Dupuy took 1 percent of the unabridged dictionary, refined the list by removing technical words, foreign words, compound words, derivatives, proper nouns, and checked to see if the words on the list appeared in four other unabridged dictionaries. This resulted in a 1-percent sample of 12,300 words (123 words) which he then made into multiple choice items using the first dictionary meaning. Dupuy administered the test to over 3,000 children and adults who had also had other major vocabulary tests so that he could anchor his test to national norms. Thus, he could arrive at both total vocabulary size (raw score by 100) and norms from elementary school through graduate school. Table 1 shows the estimated vocabulary size for grades 12 through a doctorate in philosophy together with a vocabulary word which would approximate the most difficult word known by the median student at that level of the population.

Adults know many more "words" than table 1 indicates when proper nouns, slang, derivations, and multiple meanings are taken into account. However, it is indeed interesting that the difference in basic vocabulary size between a high school graduate and one holding a master's degree is only about 2,000 words. This size vocabulary begins to approach teachable proportions and should give heart to those struggling to teach vocabulary improvement to adults or college students. Looking at the norms another way, the difference between a college freshman at the 29th percentile and one at the 60th percentile is only about 1,000 words (6,700 to 7,700). Therefore, vocabulary improvement courses are very valuable and should be included for many if not all college freshmen and adults. A version of the Basic Word Vocabulary Test has been published for schools and colleges. (Dupuy, 1975.)

TABLE 1.—READING VOCABULARY SIZE OF TYPICAL ADULT BY GRADE LEVEL

Highest grade completed	Basic word vocabulary size	Example of words known by median student
12 high school	6, 950	Concrete
13 freshman	7, 500	Jujube
14 sophomore	7, 900	Forego
15 junior	8, 200	Trajectory
16 senior	8, 400	Grackle
17	8, 800	Nubilous
18 master's	9, 000	Brob
19	9, 100	Whist
20 doctorate	9, 200	Fetid
(99th percentile doctorate).	11, 000	Fuscous

(Dupuy 1974.)

A Look at the Findings From Publishers and Librarians Shows Us

Another way of looking at reading ability in the United States is to see if indeed people are reading. There is plenty of evidence to show that they are reading. However, the level may be modest. For example, in 1975 there were over 30,000 new book titles published, and another 9,000 new editions were published. (Bowker 1976.)

Library circulation is only moderate. For example, the New York Public Library and the Los Angeles Public Library each circulate approximately 10 million books each year. This is just four books per person in Los Angeles. However, the newspapers and periodicals enjoy circulations in the millions. Seven out of ten Americans spend 35 minutes each day reading the newspaper. Four out of 10 persons spend 29 minutes a day reading magazines. (Sharon 1974.) While this is a considerable amount of reading, it is far less than might be desired and far less time than is spent daily viewing television. It is the function of the college and adult educators to emphasize lifelong reading habits necessary for a "literate" nation to consider itself well-read.

A Look at Readability Assessments Shows Us

A number of studies of readability of newspapers and books have been done. Readability is an interesting concept, not too precise statistically, but it has some practical value. One way of describing the readability of a book or article is by grade level. Theoretically, a book written at the eighth-grade level requires a person with at least eighth-grade reading skills to read it with relative ease and good comprehension. The best selling trade books have a readability of approximately eighth-grade reading level. (Schulze 1976.)

Newspaper wire stories have been rated averaging about 10th grade reading level with international news rating somewhat higher (11th grade). Some columnists write down to approximately the eighth-grade reading level. (Reiley 1973.) California ballot propositions studied by St. Mary Luke Rieland at Loyola University were found to have college-level readability.

Job requirements have been extensively studied by Sticht (1975) for the Army, and he feels that in order to have success in even the simpler occupational training such as auto repairs and cooking, that a minimum of eighth-grade reading ability is required. The readability for such tasks as the reading of training materials often are written at the 10th- and 11th-grade levels.

This data tends to show that merely to be called "literate" by the census reports is nowhere near the "literacy" level needed to function in today's world. These readability studies point out another very interesting and obvious fact. Writing is the other half of reading. Therefore, if you cannot bring the reading ability of adults up (or bring it up fast enough) bringing the readability level of written materials down is a possibility. Gunning (1945) reports that United Press brought their readability level from grade 16 to grade 11 in 3 weeks. It is quite possible that the newspaper reporters, book authors, government form constructors, and ballot proposition contrivers should take a lesson from the writing simplification and readability specialists. It is even possible that some civil rights suit will cause the courts to insist upon it.

It is certainly easier to train a relatively few writers to use lowered reading levels than to upgrade the reading skills of masses. There may be some popular resistance and a public outcry, but it will not be from those who understand the reading process or the difficulties of teaching reading. If the goal is better communication, this is an obvious partial solution. However, educators, the public, and funding bodies such as legislatures and boards of education should recognize the gap between reading demands of our society on one hand and the reading abilities of the adult population on the other.

Many Colleges Offer Courses in Reading Improvement and These Are Not Always of a Remedial Nature!

We can see that the demands of reading in our society are high in comparison with reading abilities of the general public. What can we do about this problem? The answer is "improve adult reading skills."

You might ask: "Why can't reading skills be established earlier—say by the sixth grade?" Well, why do college students and adults have to take speech courses or writing courses? The answer is because reading and writing and perhaps all communication skills are very complex, and they require both training and maturity to be mastered. Just as college students and employees need to improve writing, they also need to improve reading. Reading is a fundamental communication skill requiring development at every level of education.

Another factor bearing on reading needs is that in recent years a different segment of the population is asking for college admittance with various open admissions plans and special funding for disadvantaged. In addition, thousands of business executives pay thousands of dollars to improve their reading skills and reading improvement often attracts the best students in the best colleges. Many highly educated and intellectually capable adults see the advantage of improving their reading skill, one might add, sometimes before academic administrators do.

What Kinds of Things are Taught in These Courses

The content of typical college-adult reading improvement programs was studied by Geerlofs and Kling (1968) by questionnaires sent to 336 colleges, universities, and reading clinics. Two hundred and forty-six (73 percent) responded from 46 States. Of that number, 211 were offering programs to college students and 70 were offering reading courses to adults. The respondents ranked their teaching objectives in the following order:

Comprehension
Flexibility—Rate Improvement

The following additional information was given concerning the courses:

Tests: Pre and Post tests were used 79 percent of the time.

Length: Usually 28 hours, twice a week was the course requirement for the semester.

Class time: 13 percent in lecture, 43 percent with reading exercises, 21 percent mechanical devices, 11 percent other activities, 11 percent not accounted for (other activities were counseling, discussion, study skills, etc.)

Class size: This varied greatly though 8 and 21 were often mentioned; the range went from 1 (individual) to 200.

Materials: Most classes used one or more workbooks (81 percent) and about a third (31 percent) used a machine at least part of the time.

Cost: About half (46 percent) charged no special fee and the others charged fees ranging from $3 to $125.

Homework: About half required homework (usually 2 hours per week.)

Reading improvement courses generally were not required; only 17 percent replied that developmental reading was required for those scoring low on entrance tests. Nor was the course often given credit: Only 13 percent responded that some credit was given, usually two credits.

Group statistics often obscure typical patterns, so despite the above averages, Geerlofs and Kling found that the adult and college courses fell into the following four patterns: (1) short courses—20 hours; (2) individualized programs—laboratory type; (3) long courses—40 hours or full semester; and (4) study skills emphasis courses.

Some colleges tend to run different types of courses originally developed for disadvantaged entering freshmen. The first course may be largely basic reading and study skills utilizing short lectures and such drillbooks as shown in figure 4. The second course frequently is more of an individualized laboratory situation in which students are encouraged to bring their own textbooks from other courses for application of comprehension skills, vocabulary building, and study techniques, though some of the drill materials from the first course are used to strengthen individual weaknesses. The third course on reading rate improvement utilizes the videotapes on speed reading along with instruction by a teaching assistant. Even though these tapes cannot be considered adequate programed courses within themselves, they are helpful visual aids.

In the last few years, more and more "regular admits" (nondisadvantaged) college students are entering all of the three courses either by their own request or the suggestion of a counselor. This reaction is based partly on entrance tests or difficulty in other courses. The admission of regular students to these courses has had a very beneficial effect on the disadvantaged students who now do not feel that reading courses are only for them. Frequently there

FIGURE 4
LIST OF DRILL BOOKS USED IN RUTGERS COLLEGE READING AND STUDY SKILLS IMPROVEMENT COURSES

How to Study in College. **Second Edition. Walter Pauk. Houghton Mifflin, Boston, 1974.**

How to Take Tests. **Jason Millman and Walter Pauk. McGraw Hill, New York, 1969.**

Study Skills Program. **Allan Sack and Jack Yourman. College Skills Center, New York, 1971.**

Basic Vocabulary Skills. **Nancy Davis. McGraw Hill, New York, 1969. (Part of the McGraw Hill Basic Skills System)**

Reading Drills for Speed and Comprehension. **Edward Fry. Jamestown Publishers, Providence, Rhode Island, 1975.**

Selections from the Black. **Edward Spargo, Editor. Jamestown Publishers, Providence, Rhode Island, 1974.**

Study in Depth. **Doris Gilbert. Prentice Hall, Englewood Cliffs, N.J., 1966.**

100 Passages to Develop Reading Comprehension. **Allan Sack and Jack Yourman, College Skills Center, New York, 1965.**

The Bergen Evans Vocabulary Program. **Communacad, Wilton, Conn., 1965.**

is no special fee for these courses other than regular semester tuition but credit is not given. Students must purchase some of the special books. For accounting purposes, the State government does not differentiate between reading courses and other courses.

Much of the above description of college and adult reading courses would be called a "skills approach." Another valid and not necessarily conflicting approach might be considered the "content approach." This can be seen in the second course mentioned where textbooks are brought to the class and strategies are developed for dealing with reading comprehension in specific areas of the curriculum; i.e., biology, history, science, etc.

How Effective Are These Courses?

The effectiveness of college reading programs has been studied in numerous colleges. If the goal is to improve grades (GPA), then they offer a mixed bag of results. Some do and some do not. Santeusanio (1974) offers the suggestion that there is an aptitude treatment interaction; i.e., certain aptitudes require certain teaching methods. In his own study, he found that grades improved in "verbal" type courses only.

The Time/Life Video Speed Reading System was evaluated using 89 adults who were students and staff members of the University of Wisconsin. Eight videotape instruction sessions and homework assignments were used in various patterns with no live instructor. The Nelson Denny pretest-posttest scores showed that "rate increased almost 100 percent with no live instructor. Varying group size from 1 to 10 and session frequency from 1 to 4 times a week did not affect results." (Otto, Dulin, Huchthausen 1974.) The publishers report that approximately 25,000 adults who have taken the course were in such diverse groups as Internal Revenue Service (5,000), U.S. Army Sergeant Majors School, an international accounting firm, and college students.

The improvement of reading rate has also been widely studied. There is little disagreement that reading rate in terms of words per minute can be improved significantly. The one survey of studies tends to show rate gains from the 200 word per minute range to the 500 word per minute range. (Fry 1963.) However, certain commercial organizations have made excessive speed claims with reading rates of 2,000 words per minute being reported. These rates have been doubted and refuted by the field.

There is less clarity on whether comprehension drops as a result of speed gain. Some studies show none or a slight gain. The General Motors study cited is rather an exception in that they achieved a significant comprehension gain.

Effective reading improvement courses are conducted in industrial and business settings as well as in regular schools and colleges. General Motors Institute runs a 1-year program for high school graduates who are interested in entering college in the areas of engineering or management. (Patterson 1973.) One of the five courses that they study is "Communication Skills" which includes reading comprehension and study skills. They report significant gains in both reading rate and comprehension. On the Diagnostic Reading Test, comprehension gained from 69 to 87 percent and speed gained from 249 to 329 words per minute, both significant at 0.01.

There Are a Number of Courses Available

There is evidence that reading courses are reasonably widespread even though they do not affect a majority of the college population. Lowe (1970) found that 70 percent of the institutions of higher learning in Florida had programs. Hayward (1971) found that 53 percent of Canadian colleges had programs. A more recent survey by Smith, Enright, and Devirian (1975) found that of all the U.S. colleges concerned, 38 percent responding, the following reported having "learning centers."

	Percent
2-year colleges	78
4-year colleges	43
Universities	57

Learning centers which nearly always include reading improvement courses, are a relatively new phenomenon as 57 percent of them became operational after 1970 and only 10 percent existed prior to 1960. In 2-year colleges they tend to be administered by English departments while in higher institutions the education or counseling departments house the program. The staffs tend to have degrees in reading (58 percent) or English (52 percent).

The Need for Training Instructors

The Digest of Educational Statistics tells us that in 1974 there were only 90 doctoral degrees granted in reading education. (Grant and Lind 1975.) To put this in perspective, this is slightly more than 1 percent of the total of 7,041 education doctorates. The College Bluebook (1957) lists only 16 institutions granting a doctorate in the area of reading. A further view can be seen when we look at other areas of education doctorates: Physical education, 285; special education fields, 163; student personnel, 588. While it is true that people work in the reading field with doctorates in other areas of education, psychology, or humanities, it is also true that only a very small portion of reading doctorates would work in the college and adult levels. A sampling of the Directory of Graduate Programs and Faculty in Reading (Guthrie 1976) reveals that very few institutions even mention college and adult reading as a specialization possibility.

The availability of teachers with a master's degree in reading was considerably higher, 3,287 in 1974. While the overwhelming majority of these people teach in the public schools, either as classroom teachers or remedial reading specialists, it is undoubtedly many of these master's level people who are teaching reading courses on the college level. Possibly one reason that speech and writing courses get college credit and reading courses do not is that there are relatively few reading faculty in the upper ranks. One simply cannot get to be a full or associate professor in most institutions without a doctorate. If reading is ever to have the recognition it deserves, college reading courses must be staffed with professors who hold the terminal degree in reading.

Courses Offered for Instruction of College Level Reading

The Minnesota Reading and Study Skills Center has conducted a survey of courses that should be taken by college and adult reading instructors (Vavoulis and Raygor 1973). The following university courses were rated in the highest category by over 60 percent of the respondents:

Foundations of Reading
Reading Difficulties
Teaching Reading in Secondary Schools
Practicum in Reading
Diagnosis and Treatment of College Learning Difficulties
Materials and Related Instructional Techniques in Reading and Study Skills Area
Basic Principles of Measurement
Instruments and Techniques of Measurement
Research Foundations for Reading and Study Skills
Clinical Practice in Diagnosis and Treatment of College Learning Difficulties

It can be seen that teaching reading at the college level requires substantial post-master preparation before qualifying as a college or university instructor. It might be noted that few such complete programs are offered across the Nation, again stressing the need for more adequate teacher-preparation facilities.

What Should Our Goals for the Future Be?

Recommendation 1: Need for Instructors

There are already more college improvement courses than fully qualified instructors. The obvious answer is to train more instructors. We need to encourage more universities to offer doctorates in reading and to encourage those universities now offering doctorates in reading to expand their programs, particularly for the college and adult level. One approach would be to have the Right-To-Read Director or the Commissioner of Education write a letter to university presidents calling attention to this serious need, supplementing the letter with press releases.

Federal funding is an especially potent weapon of persuasion. Funds could be granted to increase university staffs in the adult and college reading field, and fellowships should be granted to graduate students for tuition and living stipends. For example:

10 professors ($20,000 salary plus $10,000 overhead)	$300, 000
100 fellowships ($6,000 salary plus $4,000 tuition)	1, 000, 000
1 USOE Right-To-Read college and adult specialist ($20,000 plus overhead $10,000)	30, 000
Annual cost	1, 330, 000

This would turn out an average of 20 more doctorates in reading per year. Added to the 90 now being produced, we would for the first time surpass the production of 2 per State, on the average. Furthermore, all of these new fellowships would be in the area of college and adult reading. By adding the extra faculty member, undoubtedly more nonfederally funded doctorates would be encouraged. State legislatures could fund small versions of this plan.

Recommendation 2: Increase Amount of Courses

Even though a majority of colleges have reading improvement courses, there are still plenty that do not. Remember that only 45 percent of the 4-year colleges and 56 percent of universities have learning centers. Undoubtedly, more have isolated courses, but they are still not universal. However, a more serious problem is that present courses are not affecting a large part of the student body. An exception to this might be some 2-year colleges and certain 4-year colleges that have a high percentage of disadvantaged, but the typical college student does not take a reading improvement course. Expansion should not be explosive but gradual and orderly as more instructors are trained and awareness grows. Technology in forms of films and videotapes can help, but even these require the supervision of a fully qualified professor.

Expansion of courses should occur in evening adult schools at both colleges and secondary schools, as well as training programs in private industry and the armed forces.

How to encourage expansion is a problem, but some suggestions would be:

(a) Request assistance from State department of education personnel in encouraging LEA's to offer the courses for adults;

(b) Articles could be written for journals which go to college administrators and industry training directors;

(c) Faculties should be urged to offer college credit for reading courses. International Reading Association members and chapters might be asked to set this in motion;

(d) The State and local governments could set examples by training their own employees.

Recommendation 3: Improve Reading Course Content

There must be a continual improvement in the quality of college and adult reading instruction. At present much of this function is being done by professional organizations such as the National Reading Conference, the College Section of the International Reading Association, College Reading Association, the Western College Reading Association, and others. These organizations serve as information exchanges and places where research can be reported. They could be strengthened by having the colleges simply increase travel funding.

Courses are also partly dependent on the publishing industry supplying them book and audiovisual materials. It is perhaps dangerous for the Government to get involved in the publishing industry, but publishing should be recognized as an educational force. Publishers should be encouraged to produce in the college and adult reading field.

The professional organizations too often see publishers only as a source of revenue for renting booth space. Publishers respond by only sending sales personnel to professional organizations. A rapprochement could be attempted by asking publishers to send professional personnel such as editors to attend and participate in research and dissemination sessions. Publishers might seek to upgrade their professional staffs with those who have more formal training in reading content and not just editing, book production, and selling skills.

College and adult reading courses will improve only as knowledge in the field improves. Agencies which provide research grants should be encouraged to set aside a portion of their funds for college and adult reading. The Right To Read office should monitor new research grant proposals before Congress to see that college and adult reading is included wherever possible.

State Right To Read directors could be encouraged to start small organizations of local college and adult reading instructors which have a training component. A very modest amount of funding for stamps, mimeographing, and telephoning plus a bit of professional organization time could pay dividends in improved courses.

The first recommendation of this paper, to increase the number of doctorates in college and adult reading, would also improve course content.

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CHAPTER VII—SUMMARY

The author states that one of the major problems facing American society is the extent of functional illiteracy.

This paper reviews the definition of functional literacy, the history of literacy instruction, and the extent of literacy among specific populations in the society.

In addition, an examination is made of the preparation of adult literacy teachers, the assessment techniques employed, and the instructional techniques utilized.

The author concludes with specific recommendations for improving adult literacy programs.

CHAPTER VII

Functional Adult Literacy

by Oliver Patterson
Associate Professor
City College of New York
New York, N.Y.

During the 1960's and continuing into the 1970's ethnic, political, educational, and economic groups joined forces in demanding that every adult and child had as one of his most fundamental rights, the right to literacy. This culminated in the Right To Read movement and revitalized concern in all areas of reading instruction and research.

Perhaps no area is of greater concern to the society than adult literacy, for if we are to have an open and democratic society, free of oppression and violent change, it is clear that combating illiteracy must be a top priority. The national Government, in fact, recognized illiteracy as a nationwide problem with the passage of the Economic Opportunity Act in 1964. For the first time, Federal money was allocated directly for adult literacy education.

This paper attempts to answer the following questions as they relate to adult literacy: (1) Where are we? (2) Where do we want to be? (3) How do we get there?

Where Are We?

Definitions: The Minimal Level of Reading

Although there is almost universal agreement that the United States has a literacy problem, there is not universal agreement upon a definition of literacy. Bormuth (1974) observed:

> During the past century nearly every movement that has sought to better man's lot has given a prominent place in its program to making him literate. And all of these programs have eventually encountered the same problem. When their proponents descend from the rarefied stratosphere of rhetoric and attempt to implement their programs they must ask the complex question: What does it mean to be literate? (Bormuth, 1974.)

Gray, who certainly has not ascended in the stratosphere of rhetoric, defined a person as functionally literate . . .

> when he has acquired the knowledge and skills in reading and writing which enable him to engage effectively in all those activities in which literacy is normally assumed in his culture or group. (Gray, 1956, p. 24.)

If we accept Gray's definition of functional literacy, the logical question to be raised is: What is the minimal level of reading and writing ability needed to function effectively in American society?

Some adult literacy specialists maintain that ability to read and understand newspapers should be the minimal level of functional literacy.

There is little doubt that newspapers are far and away the primary reading diet of Americans who read. In a study as early as 1939 Waples and Tyler found that the total reading of 90 percent of factory workers was confined to the daily press. Campbell and Metzner's study (1950) confirmed these findings.

Smith (1970) holds that since most newspapers have a seventh-grade level of readability, a seventh-grade level of reading achievement should be the minimal standard.

A second approach advocated by researchers is to examine the minimal literacy skills needed to profit from vocational training. Sticht et al. (1972) sought to determine functional literacy levels needed for four selected military jobs (i.e., cooks, vehicle repairmen, supply clerks, and armor crewman). It was concluded that an eighth-grade level was a reasonable "general purpose" target for functional adult basic education.

Interestingly, the Adult Basic Education Act of 1968 recommended achievement of the eighth-grade level as the target of the Adult Basic Education Program. According to this definition, those individuals who do not read at the equivalent of the eighth-grade level suffer from a reading deficit (U.S. Office of Education, Division of Adult Education Programs, 1967).

What must be emphasized at this point is that the minimal level currently accepted, or proposed, should not be viewed as something which is permanent and fixed forever in the firmament. Clearly, the level of functional literacy needed in any society will depend upon the changing requirements of literacy in that particular society. The American pioneers, for example, certainly needed much less reading and writing abilities than those who today live in our complex society. Moreover, the self-perceptions of people are constantly changing. A sanitation worker, who may have needed a fourth-grade education, may not perceive fourth-grade education as satisfactory for his children. The changing literacy requirements of society and the constantly changing self-perceptions of people result in ever changing definitions of functional literacy.

It does appear, however, that today a literacy-knowledge level that corresponds roughly to junior high school achievement is needed to function effectively in American society, if by functioning one solely means ability to: (1) Read and understand newspapers and (2) profit from vocational education.

A danger inherent in accepting such a prescribed level of literacy is that while it may answer the economic system's work needs, it may neither answer the felt needs of individuals nor of the cultural communities from which they spring. In fact, and I hope this never occurs, it is possible that powerful forces within a society could one day call for the termination of an individual's education when he has mastered the necessary entry-level skills required for industry.

Many individuals who have long struggled in adult education firmly believe that Gray's broad definition of total functional literacy which stresses human as well as work needs, is preferable to the very narrow definitions currently employed.

History of Adult Literacy Education

Literacy education has traditionally been the "step child" of American education, waxing and waning from one crisis period to another. During World War I, literacy programs were established so that men in the armed forces could function effectively. After the war was over, interest in literacy education subsided. During the Great Depression of the 1930's, the Government established literacy projects but as the country recovered, interest in adult literacy waned. The next major interest in adult literacy occurred during World War II when it was discovered that more than 100,000 of the first 2 million men called to duty were rejected because they were illiterate. Successful literacy classes were established but as Kempfer (1949) noted, the interest in literacy passed as the war wound down.

During the 1960's interest in literacy was, in part, awakened by the profound impact of the civil rights movement. Leaders such as Dr. Martin Luther King, Jr., raised the moral conscience of the Nation. Among the other reasons for the renewed interest in literacy were: (1) The technological revolution which made obsolete purely physical skills, (2) the dramatic shift of population from rural areas to metropolitan centers, and (3) a growing acceptance by government, business, and educators of the concept of life-long learning.

In 1964 the landmark Economic Opportunity Act was passed. The purpose of the legislation was:

> to initiate programs of instruction for individuals who have attained age 18 and whose inability to read and write the English language constitutes a substantial impairment of their ability to get or retain employment commensurate with their real ability, so as to eliminate such inability and raise the level of education of such individuals with a view to making them less likely to become dependent on others, improving their ability to benefit from occupational training and otherwise increasing their opportunities for more productive and profitable employment, and making them better able to meet their adult responsibilities. (Economic

Opportunity Act, Statutes at Large. 88, 452 1964.)

Since the original legislation was passed several key amendments have been added. In 1966, the law was changed allowing up to 5 percent of the total adult basic education allocation to go for the training of adult basic education teachers. The Adult Education Act of 1970 extended the original purpose to include adults who wished to complete high school. The education amendments of 1974 required each State to use at least 15 percent of its funds for special experimental demonstration projects and teacher training.

Bina and Dowling (1976) reported that: (1) National expenditures for adult basic education programs have increased from $32.5 million for fiscal year 1966 to $67.5 million per year for fiscal years 1975 and 1976; (2) the number of adults in federally sponsored adult basic education has grown from 38,000 in 1965, to over 1 million at the present time; and (3) the categories of students identified by priority levels are: first priority—grade levels 0–4, second priority—grade levels 5–8, and third priority—grade levels 9–12.

Literacy programs can be found in such diverse places as prisons, adult training centers, senior citizen centers, evening high schools, economic opportunity centers, senior citizen centers, churches, and community colleges. Many of these literacy projects are carried out through the civilian action programs which receive funds and support from the National Youth Corps and Job Corps.

It must be reemphasized that the increased financial support for adult basic education programs is recent in comparison to the long-term support that elementary, secondary, and college programs have received. This fact has undoubtedly influenced the quality of instruction and the quality of the instructional programs.

Extent of Illiteracy

Although the U.S. Bureau of the Census surveys the extent of illiteracy, due to the nature of the survey the number of functional illiterates is undoubtedly underestimated. First, the survey assumes that all people 14 years or older who have completed 6 years of school are literate. Second, those who orally report they can read and write any language are classified as literate.

The 1969 survey found that the illiteracy rate in the United States is 1 percent of the population (1.4 million). Bormuth's study (1969) suggests that number of years in school may not be a valid index to use to determine functional literacy. He presented children in grades 3 through 12 with 8 representative newspaper articles. Cloze tests were constructed over the articles by deleting every fifth word. Bormuth found only 33 percent of the students in grade 6 and 65 percent of those in grade 12 able to fill in 35 percent of the cloze deletions. Previous studies of Bormuth (1971) have shown that students who are unable to answer at least 35 percent of the items in a cloze test can gain little or no information from the printed material. It must be pointed out that the subjects in the study were from middle class homes. One must only assume that the results would have been much worse if the subjects had been from poverty areas.

Recent surveys of adult functional illiteracy do suggest the true magnitude of the problem. Harris and associates (1970) sought to determine the number of Americans who were prevented by reading deficiencies from filling out application forms for such common needs as a Social Security number, a personal bank loan, public assistance, and a driver's license. They found that 13 percent (18.5 million) of American adults failed to fill out the forms with fewer than 10 percent errors, while 3 percent (4.3 million) missed more than 30 percent of the items (an item being a blank on a form).

Northcutt (1975) reported the results of the Adult Performance Level Study in which adults had to apply literacy skills to tasks derived from real life situations. Depending upon the difficulty of the task, the estimate of the number of adult illiterates ranged from a low of 20 million to a high of 86 million. For example:

> Given a series of four newspaper help wanted advertisements, 17 percent of the sample were not able to determine which one was placed by a private person, rather than a corporation or public institution. This result yields an estimated 20,071,000 adults who were not able to perform this task. (Northcutt, 1975, p. 48.)
>
> Given odometer readings and fuel consumption, a surprising 73 percent, or a projected 86 million adults, weren't able to calculate accurately the gasoline consumption rate of an automobile. (Northcutt, 1975, p. 48.)

The exact number of functional illiterates is not known. It is clearly dependent upon the definition used and the testing procedure employed. If ability to read and understand the newspaper is used as the criterion of literacy a conservative estimate of adult illiteracy would be approximately 20 million.

Who Are the Illiterates?

The data from the census, while underestimating the degree of functional illiteracy, vividly demonstrates that illiteracy is not equally distributed across all segments of American society.

Illiteracy, race, and ethnicity.—In terms of absolute numbers there is more illiteracy among whites—particularly rural whites—than among blacks. However, in terms of percentages, there is little doubt that illiteracy is much more pervasive among African-Americans than among whites. Only 0.7 percent of whites were found to be illiterates, while the rate for blacks was 3.6 percent. The only other ethnic groups that showed a deficit significantly different from whites were Mexican-Americans and Puerto Ricans. Over 45 percent of the adults in these two groups had less than 8 years of schooling and 75 percent had less than 12 years. In analyzing these figures Corder (1971) stated that in terms of educational deficiency in the adult populations those of Puerto Rican or Mexican origin show the greatest deficit, followed by blacks.

Illiteracy and geographic region.—The data suggest that illiteracy is particularly acute for those over 25 years of age in the South (7.5 percent) and in metropolitan areas (7.1 percent).

Illiteracy and sex.—Only for blacks was there a relationship between sex and illiteracy. The illiteracy rate for black men was found to be twice the rate of illiteracy for black women.

Illiteracy and age.—It is clear that age and illiteracy are related. Of the total number of illiterates, more than 77 percent were found to be over 45 years of age.

In summary, illiteracy is related to age, geographic region, and racial-ethnic membership. Furthermore, the data on age suggests that illiteracy is related to the availability of education. For instance, 7.1 percent of the blacks who are between 25 and 29 years of age have not completed 8 years of school; however, 31.8 percent of the blacks over 29 years of age have not completed 8 years of school.

Adult Literacy Teachers

One key to any educational program is the quality of instruction provided. Houle (1960) compared the leadership within adult education to a pyramid which is divided horizontally into three unequal levels: (1) At the base is a large group of volunteers; (2) at the intermediate level is a smaller group of part-time teachers (e.g., librarians, staff members of settlement houses, and public schoolteachers); and (3) at the peak is a very small group of specialists in adult basic education (ABE).

Verner et al. (1970) reported that few of the volunteers and part-time workers ever receive any training specific to the task of educating adults. Barnes and Hendrickson (1965) found that where teacher training programs did exist for these groups they lasted only 2 to 5 days.

A study completed by Robinson (1974) indicates that the group of adult basic education specialists who stand at the peak of the pyramid may not themselves have had training in reading/language instruction. Robinson mailed questionnaires to 119 individuals who had been awarded the doctorate in adult education in order to determine their training and classroom experience in reading instruction. He found that over 70 percent of the respondents had not had a course in reading instruction; moreover, nearly 80 percent had no classroom experience in teaching reading.

What is the content of graduate work in adult basic education? Ingham and Qazilbash (1968) examined the course descriptions from 26 institutions offering graduate work in adult education. The following courses were taught at all institutions: (1) A survey of the field of adult education, (2) program development in adult education, (3) adult learning, and (4) general administration. Other freqently mentioned courses were: (1) Education for community leadership, (2) adult literacy and fundamental education, (3) the adult citizen, (4) parent education, (5) seminar in group and interpersonal relations, (6) the democratic idea and adult education, (7) problems of work and leisure, and (8) community development.

It appears evident that graduate programs in adult education attempt to prepare generalists and not adult reading or literacy specialists.

One would expect local district Right To Read directors to be specialists in reading instruction and hence be instrumental in assisting adult basic education directors establish training programs for their staffs. However, Gross et al. (1976) found that technical assistance to adult basic education teachers was not a high priority item in Right To Read programs. In fact, they found "... the median number of ABE teachers that have received technical assistance from State or local Right To Read programs is zero, indicating that in at least half the States no adult basic education teachers received technical assistance" (p. 15.4).

The most surprising finding of the Gross study was that the assumption that the local Right To Read directors were reading specialists proved inaccurate:

> In terms of new title VII definitions of reading teacher and reading specialist, one-third of the local district Right To Read directors have the qualifications for reading teacher. (Gross 1976, p. 13.10.)

As Edward Fry notes elsewhere in this publication (p. 66), the vast majority of graduate programs in reading primarily concern themselves with the preparation of public school reading teachers, with little or no attention given to adult literacy training. Cortright was able to identify only 17 educational institutions which provided course work leading to competency in literacy instruction. The recency of such programs is evident when one realizes that the first graduate program in literacy education was begun in American University's Department of Education in 1963.

The amendments to the 1964 Educational Opportunity Act which allowed a portion of the adult basic education appropriations to be spent in teacher training has resulted in universities establishing federally sponsored short-term institutes and workshops. In 1968, for instance, 2,004 teachers attended federally sponsored workshops at 32 institutions. These workshops were, in effect, emergency solutions to upgrade the low level skills of adult basic education teachers. If adult basic education is to be viewed as a profession, short-term work must be replaced with intensive supervised graduate study.

Mocker (1976) emphasized the urgency of the problem when he stated:

> The need for trained reading personnel who understand adult learning problems and know how to conduct teacher-training programs in reading is essential if the quality of classroom instruction in Adult Education is to be improved (p. 1).

Assessment

The most common instruments used in adult basic education programs appear to be standardized reading achievement tests. They are employed to obtain a grade level equivalent score which is then used to match adults with appropriate materials.

As has been noted by Farr (1969) standardized reading tests yield only a measure of relative performance. Farr states:

> Such tests are not meant to be diagnostic, nor are they meant to give an accurate assessment of functional reading levels (Farr, 1969, p. 5).

Smith (1970) recommended the use of informal reading inventories to assess the reading needs of adults. However, in order for these inventories to be used most effectively, the literacy teacher must have some understanding of the reading process. If not, what often results is simply another grade level score, providing little insight into those language and experiential factors that interfere with meaning.

Peebles (1975) conducted a study in which he asked adult literacy teachers to identify what they should be able to do and what they were able to do. Administering and interpreting informal reading inventories was one of the areas in which the teachers felt least adequate.

Methods and Materials

Smith (1970) categorized 10 fundamental approaches used in adult basic education programs: (1) basal series, (2) multilevel packaged kit, (3) programed workbook, (4) experience, (5) mass media, (6) machine, (7) worktext, (8) computer-assisted instruction, (9) individualized reading instruction, and (10) eclectic.

As is probably evident, the approaches used are very similar to approaches used for elementary schoolchildren. The mere listing of approaches does not, however, reveal the time emphasis given within classes to phonics, comprehension, or functional reading tasks.

The previously cited Robinson study (1974) does suggest the instructional focus. He asked Ph.D.'s in adult education to define reading. Based upon an analysis of the responses, he concluded:

> If one rather common element could be identified in these varied definitions, it was the emphasis on the decoding skills of reading. This concern with word identification seemed to be paramount as opposed to comprehension and a related change in behavior on the part of the reader (p. 168).

Peebles (1975) found that adult reading teachers identified the following instructional areas as those in which they needed additional training: (a) Use appropriate materials and methods for specified reading deficiencies, (b) use appropriate methods and materials for teaching language arts, (c) integrate knowledge of reading skills, particular dialects and reading problems, and (d) use the language experience to teach reading.

It appears that instruction in adult literacy classes tends to focus upon phonics. The approaches seem very similar to those used for elementary schoolchildren. Moreover, instruction does not appear to attempt to integrate literacy training with the real world of the adult. Yet, there is evidence that instruction which is not dissociated from the world of the adult is successful. Irish (1965) found that teachers who were able to integrate subject matter related to the real needs of adults (e.g., health, education, consumer education) with literacy instruction had fewer dropouts and lower rates of absenteeism. Darkenwald (1974) attributed his finding that black teachers had fewer dropouts than did white teachers to the existence of a meaningful cultural dialog between teacher and student.

An examination of the materials used in adult education classes does reveal that publishers have made progress in developing materials that do relate more directly to the pragmatic and vocational interests of adults. Rockhill (1976) emphasized that adult education has traditionally had a much broader tradition in that the discovery of the relation between knowledge and living is as primary as is the transmission of a fixed body of facts.

Materials have yet to be developed by publishers that would help functionally illiterate adults understand the relationship between knowledge and the social environment in which they find themselves. As a matter of fact many of the materials appear to be aimed at "socializing" adults, rather than having them gain an understanding of those social forces that constantly influence their daily existence.

Publishers might use the results of studies of the reading interests of adults as guides in the selection of topics. Brown (1970) reported the results of a study that sought to determine which topics adult city-core functional illiterates preferred. Book titles were composed to represent the following six categories of reading interest: (1) Children's stories, animal stories, humor; (2) sociology, history, civics; (3) family and self-improvement, jobs, health; (4) religion; (5) sports, adventure, travel; and (6) science. The adults were asked to listen as pairs of titles were read and to indicate which of the two titles they preferred.

Brown stated: ". . . it was presumed that one of the most highly preferred categories would be sports, adventure, and travel, since this seems to be an area of such great interest to remedial readers at the secondary level. It was also supposed that titles dealing with humor and animals would be of interest to adult city-core illiterates, largely Negro, who are often believed to be particularly blessed with a good sense of humor and largely from rural backgrounds where contact with animals would be likely" (p. 105).

The findings were not in keeping with the assumptions, for the three most favored topics, in their order of preference, were: (1) Family and self-improvement, jobs, and health, (2) religion, and (3) sociology, history, and civics.

It seems that adult illiterates do not share the same interests as do high school adolescents, but are interested in topics related to their personal survival and subject matter concerned with moral values and cultural awareness.

Summary

The purpose of this section was to answer the question: Where are we in adult literacy education? The following conclusions appear to be justified:

1. Adult illiteracy continues to be a major problem disproportionately afflicting rural whites, African-Americans, Mexican-Americans, and those over 45 years of age.
2. The financial commitment of the Federal Government to eradicate adult illiteracy has grown since 1964; however, only 5 percent of the

total number of functional illiterates are currently being serviced by programs.

3. The professional training of adult literacy personnel, at all levels, appears to be extremely limited.

4. Current instructional approaches and methods vary little from methods employed with elementary schoolchildren. Moreover, the focus appears to be upon word identification with little attempt to integrate literacy training with the real world of the adult.

5. Some limited progress has been made in developing materials designed specifically for adults.

Where Do We Want To Be?

There is much to be accomplished if illiteracy is to be dramatically reduced in our Nation. The purposes of this section are to identify the needed areas of improvement and to offer some fairly specific recommendations.

Education of Literacy Teachers

Adult literacy personnel must be provided the training they desire. We want to have both a cadre of adult literacy specialists who will be able to assume leadership roles in the profession and adult literacy teachers who are skilled instructors.

I would recommend the following procedures to the National Directors of Adult Basic Education and Right to Read.

1. Identify faculty at colleges and universities across the Nation who are adult literacy specialists. Special attention should be given to colleges in or near impoverished areas.
2. Provide funds so that committees composed of local university faculty and local Adult Basic Education and Right To Read directors, or their designates, may jointly design graduate programs in adult literacy.
3. Direct that there be three levels of graduate work: (1) short-term institutes and workshops, (2) master's level work to produce adult literacy teachers, and (3) doctoral work to produce researchers and leaders for the field.
4. Form a national committee of leaders in adult literacy education to review the graduate programs. Fund those that are outstanding, paying particular attention to geographic balance.

The content of the graduate courses will, of course, be crucial. I would suggest the following courses as a core curriculum from which to build.

1. *Characteristics of the functionally illiterate adult.*—This should be an interdisciplinary course, drawing its content from the social sciences, as well as from history and ethnic studies.
2. *Literacy and language learning.*—Among the topics covered should be: Lingual cultural differences; the process of reading; factors influencing language growth, fluency, and comprehension; and second language learning.
3. *The assessment of functional literacy.*—Topics to be covered: Standardized, informal, and criterion referenced tests; cloze procedure, and miscue analysis. Special attention should be given to the design of instruments that assess functional reading tasks.
4. *Functional literacy instruction.*—This course should explore instructional strategies used to develop the reading language/abilities of adults.

Fieldwork should be an integral part of each course. Ideally, the fieldwork should take place within an institution that has an adult basic education program: Prisons, economic opportunity centers, manpower training programs, etc. If this is not possible provision should be made at the colleges for adults to be tutored.

Minority teachers should, of course, be well represented in the graduate programs because they are very likely to come from the same cultural-linguistic community of the adults and, therefore, may provide affiliative relationships. In cities such as New York minority teachers have been disproportionately fired from the public schools. Many have not been able to find employment in the largely white suburban school districts surrounding the central city. At no time has such a highly trained pool of talent existed to be tapped for adult literacy programs.

Instructional Strategies

Functional literacy teachers should reject the old saw, "first we learn to read; then we read to learn." We should be integrating literacy instruction with the real world in which the adult exists.

Purposes.—As a first step in accomplishing this task, the leaders of adult education and reading should make explicit that the purposes of functional literacy education are:

1. The transformation of the adult from a dependent to an independent individual who has the necessary skills needed to succeed in today's society.
2. The acquisition by the adult of the necessary knowledge that will aid him in understanding himself, his community, and his society so that he will, in turn, be the transformer of society.

Thematic-experiential approach.—The primary mode of instruction should be a thematic-experiential approach. The key characteristics of such an approach are:

1. Literacy instruction is based upon themes or subject matter that come directly from the personal and social concerns of the adults. Discussion in such an approach is vital, for it provides the primary reading matter.
2. The reading/language abilities of the adults are expanded and enriched by using their dialogs and selected reading materials related to the theme.
3. The experiences of the adults are broadened by visits to community, private, and governmental agencies, and by having invited representatives from such agencies give talks to the adults.
4. Functional literacy tasks are continuously interwoven during instruction as the adults learn "coping" strategies for succeeding in the real world.

I have found that the thematic-experiential approach does move literacy instructors from their heavy reliance upon phonics, word lists, and isolated drill activities.

Anticipation of meaning.—Reading has been redefined as a language-thought process during which the reader uses language cues (graphophonic, syntactics, and semantic) and prior information to extract meaning (see: Smith, 1971; Goodman, 1967). Goodman (1967) has called reading a "psycholinguistic guessing game" in that the reader is continually using all cues to anticipate meaning. We should be employing instructional strategies that will expand the ability of adults to use all cue systems to extract meaning from written materials.

I would strongly recommend "cloze type" procedures as one instructional approach. For example, the following passage should be presented to the adults. They would be directed to fill-in the missing letter.

a, e, i, o, u

The m--dical c--nter I go t-- is --n Tompkins Ave. It is --sually cr--wded there. But the n--rses and d--ctors are alw--ys very n--ce.

More advanced forms of these exercises might leave out derivational and inflectional endings, connectives, repeated words, and related words. In fact, entire groups of words may be deleted. Such activities encourage adults to gather information, make predictions and corroborate the predictions based upon prior knowledge and knowledge of language. As Jongsma (1971) found, such exercises are not beneficial if the teacher does not discuss the answers with the students.

Assessment Strategies

Informal Reading Inventory

The assessment procedures currently in use are very limited. We should be using assessment techniques that will determine the functional reading levels of adults. Betts (1942) suggested three functional reading levels: (1) The independent reading level, the level at which the individual does not need teacher assistance; (2) the instructional reading level, the level at which the individual requires teacher guidance and assistance; and (3) the frustration level, the level at which the material is too difficult to benefit from instruction. Adult literacy teachers can construct Informal Reading Inventories to discover the functional reading levels of their students.

A readability index may be used to select passages of varying difficulty. Lower level passages (i.e., passages having a readability score below third grade) should be approximately 75–100 words in length. Upper level passages (i.e., above third-grade level) should be approximately 200–300 words in length. Normally, comprehension questions designed to tap the following areas are asked; main idea, words in context, details, and inferences. As the adult reads, his oral errors are recorded. The following chart may be used to determine the functional reading levels.

	Word Identification	Comprehension
Independent .	99 percent or better .	90 percent or better.
Instructional .	95 percent or better .	75 percent or better.
Frustration . .	90 percent or less . .	Minus 75 percent.

Miscue Analysis

I would strongly recommend that concepts drawn from miscue analysis be used to interpret the oral reading errors which adults make on the informal reading inventory. Miscue analysis differs from traditional error analysis in that it does not proceed from a stimulus-response conceptual framework. Miscue analysis is grounded in psycholinguistic theory and proceeds from the following four assumptions:

1. All readers bring an oral language system to the reading process.
2. All readers bring the sum total of their past experiences to the reading process.
3. Reading materials represent the language patterns and past experiences of the author.
4. Reading is an active language process which involves constant interaction between the reader and the text (Goodman, Y. and Burke, 1972, pp. 10–13).

Suppose a student reads the sentence *People riding wagon trains did not have our easy way of life* as *People ride wagons, trains and they did not have our easy way of life.*

A traditional analysis might conclude that the reader needs to reduce his reading speed so that he will not insert endings (wagon—wagons) or words (and they).

An interpretation based upon miscue analysis yields different insight. First, the adult appears to have repatterned the original sentence into two simple sentences: (1) People ride wagon trains and (2) They do not have our easy way of life. The repatterning allows us to understand the addition of *and* and *they.* The pause (represented by the comma) between wagon and trains indicated that the reader was not reading *wagon trains* as a compound noun but as two distinct nouns. Since this is so, the addition of the plural ending-s is understood.

As teachers become skilled in interpreting oral reading errors, they move from oversimplistic prescriptions and take a much more active role in helping adults process ideas embedded in complex language.

Tests of Specific Reading Tasks

Tests of specific reading tasks that are derived from the real world of the adult are only now being developed. The item below is one that could be included in such tests:

> Teacher reads: Write the number 1 next to the place where you would most likely buy a loaf of bread.
>
> Grocery ——   Stationery ——
> Pharmacy ——

One possible danger in using such tests is that some teachers might try to directly teach the isolated tasks. One might imagine long lists of words being given to adults to memorize. It should be remembered that tests of specific reading tasks are measuring the end products of instruction and should not be confused with the process of instruction.

Specific Reading Skills Materials

Every literacy program should have the currently available workbooks, kits, and programed materials designed for adults. We should, however, be using these materials to reinforce reading skills. It must be remembered that since the materials do not teach, they obviously neither replace instruction nor instructors.

In too many programs adults march into a room, gather their folders, answer questions over short meaningless paragraphs, and self-correct their answers. Too often the instructional personnel have limited involvement with the adult learner. In fact, in many such programs teachers are called managers, emphasizing the administrative role they are expected to play. Stoff (1973) maintains that such procedures offer a distorted view of teaching and learning, industrialize education, and may harm those it is intended to teach.

Where such materials are used, teachers must be constantly involved with the training of the adults. The easiest thing in the world to do is to lock someone into a testing program. It is much harder to assist an individual to learn.

Administrative Strategies

Approximately 5 percent of the adults who could benefit from adult literacy instruction are currently serviced. The National Directors of Right To Read and Adult Basic Education should inform every Congressman and Senator of the link between literacy education and vocational-preprofessional training. Budget requests for adult literacy education should be an integral part of the new jobs program of the incoming administration. Adult literacy educators who have national reputations should be invited to address legislative hearings. Professional organizations such as the International Reading Association and the Adult Education Association should be encouraged to act as "pressure groups."

2. For whatever reasons, there does not appear to have been a close working relationship between local Adult Basic Education Directors and local Right To Read Directors. This must change. Regular meetings between these leaders must be encouraged in order for them to assess cooperatively local adult literacy needs, share instructional insights, and cooperatively plan educational programs.

3. The professional training of the leaders within Right To Read must be upgraded. Over two-thirds of the local directors do not qualify as reading teachers! Could this happen in medicine, law, accounting, journalism, or any other profession? I doubt it.

4. Evaluation of adult literacy programs should be continuous, serving the needs of the administrators, teachers, and adults. In order for such evaluations to be meaningful, the goals of the programs should be expressed in clear and precise language. Such broad and general questions as: Does the administrative framework facilitate instruction? Is the community directly involved in the program? Are the needs of the adults satisfied by the program? should be followed by very specific questions. The above questions result in yes-no responses and do not determine the levels of commitment or achievement of the program.

Closing Thoughts

The Right To Read program began with a target date of 1980 for the eradication of illiteracy. We obviously will not meet this date. We will, however, be able to dramatically reduce illiteracy by the year 2000 if educators, administrators, politicians, and social groups maintain their commitment to literacy education. I hope this all too brief paper provides some useful directions.

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CHAPTER VIII—SUMMARY

The author, for the purpose of this paper, defines "special populations" as those learners whose native language differs from that of the school. These various language groups number over 4 million and vary in size, distribution and writing systems.

Unfortunately only a small percentage are receiving differentiated instruction.

This paper discusses four distinctive approaches to the education of non-English speakers and details specific recommendations.

The Language Experience Approach is recommended as an excellent method of integrating all of the language arts skills and incorporating the use of both the native language of the pupils and English.

CHAPTER VIII

Literacy for Special Populations

by Alfonso R. Ramirez
Education Consultant
Education Service Center, Region I
Edinburg, Tex.

Literacy, a goal sought by most societies, is also a child's principal expectation upon entering school for the first time. Yet, in spite of this unanimity of expectation, many children experience difficulty in achieving their goal. For some children, the main obstacle may be found in the instructional system but for others the difficulty may be compounded by some inherent characteristic—an impairment of a physical or psychological nature. Other children may differ from the norm in their socioeconomic background. And for many more children, learning to read in English is complicated by an inability to speak the language well.

The terms "diverse learners" or "special populations" could be applied to any of these three categories, but for our purposes only the special needs of learners whose language differs from that of the school and the textbooks will be considered.

Who are these special populations and how many are there? Statistics on language dominance, language preference, mother tongue, and similar linguistic categories are difficult to gather and interpret. We do know from the 1970 census count that there were roughly 33,200,000 native speakers of languages other than English in this country—about 16 percent of the total population. Not included in that number are the speakers of "dialect" English who might require special attention when being taught to read "standard" English. An undetermined percentage of some 20 million black persons would be included in that group.

More recent estimates, based on a July 1975 current population survey conducted by the Bureau of the Census, are provided by Dorothy Waggoner of the National Center for Education Statistics:

Total U.S. population, 4 years and older	247,459,000
Number of persons over age 4 in non-English households	28, 655, 000
Number of persons over age 4 whose usual language is not English	15, 197, 000

Waggoner established that approximately 7 percent of all children between 4 and 18, or about 4,206,000, can be considered to be speakers of other languages.

The distribution of the major language groups in percentages of that total is as follows:

	Percent		*Percent*
Spanish	69	Greek	2
French	5	Filipino	2
Italian	3	Japanese	1
German	3	Korean	1
Chinese	2	All others	12

In numbers of school age children the indication is that almost 3 million individuals whose principal language is Spanish are eligible for an education in our English speaking schools.

Not included in the survey are the speakers of Native American languages. Bernard Spelsky, in his ***American Indian Bilingual Education,*** identifies 39 separate languages, some spoken by as few as 20 or 30 persons. And the Bureau of Indian Affairs, in its Annual School Census for 1975, reports that there were 208,607 American Indian children between the ages of 5 and 18. The largest single group with a tribal language are the Navahoes, with 58,696 children for whom facile English may be difficult.

In addition to the differences demonstrated in the data cited above, and the many other languages spoken in the United States not further defined here, other factors distinguish children with language difficulties. These factors influence the schools' decisions about adapting curriculum design and instruction to meet their needs.

The degree of concentration of any given language group in a classroom is the first and most obvious difference. School districts with 20 or more students from a single language group are now affected by a January 1974 U.S. Supreme Court ruling in the *Lau* v. *Nichols* case which orders schools to provide equal educational opportunities for students from non-English speaking backgrounds. The mandate calls for a bilingual education program at the elementary and intermediate levels, with "Lau Centers" being provided by the U.S. Office of Education in order to offer technical assistance in a number of areas related to bilingual/bicultural education.

A second difference between language groups is in the historical background of the languages. Most languages have a strong literacy past and large literacy "store," since they have been written down, told, and read for centuries. Some languages, however, such as that of the Miccosukee Indians in Florida, are just now in the process of developing an orthography for the language.

A third difference can be found in the varying levels of effort being made to preserve the languages in this country. Speakers of German or French may not have the same interest in preserving their languages as have the Miccosukees—in one case the languages are thriving in Europe while the Indian language may be in danger of extinction due to the lack of use by the younger generation.

Proximity to the mother country is a factor that influences both the growth of foreign language groups and the extent to which language maintenance is likely to succeed. Some languages also play an important part in the religious preferences of their users. If a group worships in its native tongue, the religious education of the children may be dependent upon the maintenance of that language, and the community may wish to preserve it for that reason.

The differences between any given language and English with respect to the way in which they are written may affect the transfer of reading skills. Persons who read Korean or Greek do not share the same advantages with readers of Spanish or French when beginning to learn to read English. That factor, in addition to the inherent difficulty in preparing printed material in languages that do not use the Roman alphabet, may be a consideration in determining whether or not literacy instruction in the native language should be part of the curriculum.

In spite of these differences, speakers of any language other than English generally share the same difficulties in learning to read English. The first of these is the delay in beginning instruction in reading when the learner has a limited speaking ability in English. The length of time depends upon the method of instruction used, from 5 months to 2 years. Although necessary for natural transitions from speaking to reading and writing, the practice of delaying reading instruction often results in creating pressures to do more reading in less time once the instruction begins. If unchecked by positive measures, delayed instruction followed by too intensive efforts may result in reading retardation of 3 or 4 years, and in high dropout rates beginning when the pupils reach the age of puberty.

A second deterrent to improved practices is found, ironically, in the attitude of the parents of non-English speaking children, as well as of those who speak a dialect of English. There is a strong tendency on the part of parents to resist efforts to use the vernacular for instruction in the school, probably due to a fear that such instruction will only delay progress in learning English. Many parents, for example, fail to see how literacy in the native language can possibly help their children learn to read in English.

Still a third barrier to the achievement of literacy facing all language groups is the philosophy shared by most schools in this country—English is the official language and, therefore, the only language to be used in the public schools. In such a setting, non-English speakers are considered as handicapped learners rather than as possessors of valuable linguistic and cultural resources.

Although bilingual education laws and funding have resulted in some changes in this attitude, the majority of pupils requiring special attention do not appear to be receiving it. In 1975 the Federal title VII bilingual education grants reached 268,497 children in 325 school districts. Enrollment in programs for special populations in the three States with the largest numbers of non-English speakers (California, New York, and Texas) did not exceed

250,000 pupils. It is unlikely that more than 15 percent of the more than 4 million children who speak a language other than English are receiving special attention.

How are special populations being taught now? There are at least four distinctive approaches to the education of non-English speakers:

1. No differentiated instruction is offered—the teaching personnel, the methods, and the materials are the same as those provided native English speakers.
2. Pupils with limited English ability are given oral ESL (English as a second language) lessons by either the classroom teacher or by a specialist. When reading is introduced it is in English only.
3. Beginning instruction includes oral ESL and reading in the child's native language. When a certain competency in vernacular reading is attained the instruction in reading changes to English and vernacular reading ceases.
4. All beginning instruction is given in the child's native language with the exception of the oral language lessons in English. As English competency grows, subject matter and reading instruction in English are added, with first language instruction continuing for part of the day.

These approaches, or variations on them, indicate the extent to which the child's native language is used in the instructional program. Efforts to evaluate the effectiveness of each of these approaches have not yet produced definitive data, except in the case of the traditional, one-curriculum-for-all-approach. From the 1970 census we learned that the average Mexican-American completes an average of only 8 years of schooling while the average American completes 12 years. Figures for other groups range from 8.6 years for Puerto Ricans to 12.4 for Asian Americans, indicating that factors other than language are also involved.

Test scores for special populations who reach the 12th grade reflect the shortcomings of the standard curriculum for those pupils. A U.S. Commission on Civil Rights report, *A Better Chance to Learn: Bilingual-Bicultural Education,* summarizes the results:

> Academic achievement scores recorded for language minority groups in the 1966 Coleman report show that they lag significantly behind majority group Americans. By the 12th grade the Mexican-American student is 4.1 years behind the national norm in math achievement, 3.5 in verbal ability, and 3.2 in reading. The Puerto Rican student is 4.8 years behind the national norm in math, 3.6 in verbal ability, and 3.2 in reading. The Asian American student is 0.9 years behind the norm in math, 1.6 in verbal ability, and 1.6 in reading.

These findings have led to attempts to alter the methods of instruction voluntarily or in compliance with new laws enacted in recent years. And while no single remedy for this complex problem exists, there is general agreement among linguists and educators that certain changes are needed.

Recommendations

The first of these general recommendations is that we change our attitudes about language. If our schools are to serve all pupils, as intended, policies need to be established that will assure respect for each pupil's heritage, however different it may be from that of the majority group. This would include respect and appreciation for each child's language and cultural values. It would include an acceptance of differences that could lead to curriculum changes. These are not new concepts for educators. Teacher trainers have been advocating for years that "we take the learner where he is, and teach from the known to the unknown."

After a school is able to regard the child's native language skills as a useful base on which to build, arrangements should be made for someone who speaks the child's language to mediate for him/her at school, at least for the period of time that it takes the pupil to learn to communicate in English. This person could be a part-time employee or volunteer from the community, or an older student who is bilingual and can spend time with the younger, non-English speakers.

If tales of reprehension on the part of the school toward speakers of the child's native language have been circulated at home, the child who speaks no English will go to school with a fear of the institution—a fear difficult to remove which will certainly affect the learning process adversely.

A third recommendation to schools that want to improve the educational opportunities of special populations has to do with the manner in which the second language, English, is taught. When non-English speakers constitute a very small minority in a classroom or a school, the cost of providing special instruction in oral English could be prohibitive and sometimes unnecessary. One or two non-English speakers in a class of 30 native speakers of English will learn through a painful but effective "total immersion."

As the number needing this immersion grows so does the need for providing small group instruction in ESL. This special course needs to be taught by a well-trained specialist using effective methods and materials which systematically introduce the sounds and structures of the English language. When all of the non-English speakers belong to one language group, the course content can be effectively taught by emphasizing points of contrast between that language and English.

The final recommendation is based upon successful experience in several hundred classrooms of Spanish speakers in south Texas, as well as with native speakers of English in other places. The use of the Language Experience Approach is suggested as a way of serving the language development needs of all pupils without requiring special equipment or materials. By employing the oral language and experience of the child as a base for planning the instruction, this approach provides the following advantages:

1. There is freedom and encouragement of self-expression in both oral and written work;
2. There is acceptance, respect, and utilization of the learner's native language or dialect;
3. Provision is made for a high degree of active participation and personal involvement;
4. Reading is integrated with all other facets of the language arts program;
5. The reading material produced comes from the learner's own experience and language;
6. Instruction is individualized according to each pupil's needs;
7. The traditional rigid forms of evaluation are eliminated.

Before this approach can be effectively implemented in a school the administrative and teaching personnel must be willing to regard each child's language as a legitimate and valid communications medium, instead of rejecting and treating it as a bad habit to be eliminated as soon as possible. This prerequisite should apply to any instructional method but the activities that distinguish the Language Experience Approach from others cannot be carried out by teachers and administrators intent upon eradicating a child's native language.

Another prerequisite for successful application of the approach is that the teachers shed their role of "corrective agents." Many teachers feel a compulsion to correct the errors of their pupils immediately upon their commission, to "nip them in the bud" so to speak. This practice tends to build inhibitions in learners and to limit the venturesomeness required in many learning activities. The Language Experience Approach offers an alternative. Errors are not commented upon when the child is engaged in self-expression. The purpose of most of the activities is to develop the communications skills of the pupils. If every attempt is met by interruptions or by red marks, the learner soon loses enthusiasm and has nothing more to say or write. It's a natural reaction to the unpleasantness of unrelenting judgments.

Children develop their language skills more rapidly when given the opportunity to use the new language without fear of being corrected or reprimanded when they are eagerly expressing their feelings and views. And when introduced to reading and writing through the approach, the four skills of listening, speaking, reading, and writing develop simultaneously.

Observers of the Language Experience Approach in a bilingual classroom can identify four major stages of skills development:

1. The pupils are involved in a variety of experiences throughout the year and are encouraged to share their views and comments with the teacher and the other pupils. Their expressions are recorded on charts or on the children's art work relating to the experience, exactly the way they were said by the children. These daily activities provide opportunities for every pupil to develop confidence in self-expression, to listen and learn from the other pupils, and to see the relationship between spoken and written words.

2. Soon the youngsters will want to copy their dictated language and will request assistance in forming letters. At this point the teacher will find a natural entry into the teaching of handwriting, capitalization, and punctuation.

3. The third stage develops when a child's natural inclination toward independence is encouraged by the teacher's acceptance of imperfect performances and productions. Five- and 6-year-old children who begin to write inde-

pendently need a great deal of help with their spelling and sentence construction. The wise teacher can turn each request for assistance into an individualized minilesson and, by observing and noting the types of difficulties needing resolution, can plan teaching sessions for group instruction.

4. This is the "freedom at last" stage, when the child is writing without assistance from anyone. The essays produced by independent writers reveal the scope of the child's vocabulary, grammar, punctuation, imagination, and, of course, spelling. These excerpts from a second grader's 19-sentence essay written after a field trip to the beach provides a good example.

Raúl Cavazos, age 8 writes:	*Comments:*
We went to the beach yesterday.	(What does he call lakes and rivers? There are none at this site.)
We saw many lakes and rivers.	
There were many waves.	
Ruby A. lend me his bunakilers.	(Note reversal of "b" and "d" in Rudy. Does he know past tense of "lend?" Good try on "binoculars.")
There was a sudmarin and a superslide.	(Another reversal, or does he say "sudmarine?" Needs reminder of final "e.")
We saw some gelefish.	(Almost.)
Miss. Salinas had on some blue gins.	(Contrast Miss with Mrs. Does he say "gins" or "jeans?")

Creative writing also reveals the children's feelings, giving the teacher invaluable insights probably not obtainable in any other way. The following essays were produced by children who spoke little or no English when they entered school. All but the first were written independently.

First grader: This is my father. He is skinny. He stay on the house. He is sick.

First grader: My Father is a police Man. He took us to unsaldowas (Anzalduas) park and we had fun and we brake A piñata and I sow two boats raising there was a oring and a red.

Second grader: I was playing and my mother said to me Staying in the house becose I'm going owt and it got borck (dark) and she hadan comd and I was getting worggyt (worried) and I colled my naders (neighbors) so the caod come becuse I wos alown and they came to cemy (see me) . . .

Second grader: If I had $1000, I would Buy a car and I will go to California in the car. And I would get in the richest apartments, But it would have to be a grandprix.

Third grader: If I were the teacher, I'll give them easy work. You could go to the restroom all the times. You don't kneed to finish your work. You don't need to do it. I will do it for you. I won't kick you. I'll pay for the kfrterea (cafeteria). I will never levet my mother or my father. I will never get marry . . .

By the end of the third grade these children, and over 1,000 like them who participated in a south Texas Right To Read experiment, were able to read and write their own stories in English as well as in Spanish. Their parents were able to observe that literacy in the native language was of great help when the children began to read in English. In most homes these 8- and 9-year-olds were the only biliterates in the family.

Whether or not these results can be replicated depends upon the extent to which the school can adjust to permit the natural talents of the children to develop in a warm and supportive environment. The children have shown that they can do their part to achieve literacy. Can we?

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CHAPTER IX—SUMMARY

The author discusses a working definition of the term "handicapped reader" and reviews those factors related to reading failure. He urges the reader to be aware of the integration of these factors and to focus attention, diagnostically and remedially, on the realization of this concept. The roles of the classroom teacher and clinician are detailed in some depth.

The need for effective teacher training at the colleges and universities and local school institutions is stressed.

CHAPTER IX

The Handicapped Reader

by Herbert Wartenberg
Director, Reading School
Temple University
Philadelphia, Pa.

Where We Are

At the outset, a working definition of the term "handicapped reader" must be established in order to understand the research and programs discussed in this paper. Synonyms for the term handicapped reader are abundant. Consider: remedial case, developmental dyslexia, congenital dyslexia, perceptual handicap, minimal brain dysfunction, primary learning disability, specific language disability, specific reading disability, neurological impairment, and socially emotionally disturbed, among others. Regardless of the title one uses it is abundantly clear that there is a severe reading problem. The child has an inadequate sight vocabulary at even the lowest of levels and few, if any, word analysis skills are evident. His instructional reading level is significantly inferior to his hearing comprehension abilities and his oral re-reading is not improved over his oral reading at sight. Additionally, the ability to make and maintain word associations is absent, and the attention and concentration abilities needed to make these associations are severely limited. Other factors, aside from a definite neurological dysfunction, that may be inherent in the reading handicap include poor learning opportunities, emotional and motivational factors, poor vision and hearing, and other physical problems.

Many investigations have been made in order to determine those factors related to reading failure. Although many specific factors were isolated, results of these investigations indicate that rarely is there a single causal factor which actually can be isolated. Rather, there tends to be an integration of factors which, if identified, can be remediated. For purposes of clarification the following factors have been reviewed.

Intelligence.—The handicapped reader is not a child with limited capacity although, in the past, in many cases he was labeled as being of limited intelligence. At other times he has been considered lazy and unwilling to learn. We have since learned that the handicapped reader speaks and acts intelligently about those things that interest him, and that he can do well in out-of-school activities that require an alert mind. In school, the handicapped reader is often described as a highly verbal individual who is frequently doing much better in arithmetic than in reading. Where we are is at the point whereby we can isolate some of the intellectual factors related to the handicapped reader: Nonverbal functioning is superior to verbal functioning, limited performance in areas involving memory, association, concentration, and persistence, and organic brain injury is frequently indicated in subtest relationships.

Neurological disorders.—At one national conference on dyslexia it was postulated (Rabinovitch, 1966) "that the syndrome called dyslexia is a separate entity, discretely definable from many causes of reading disability." This entity ". . . reflects a definite neurological dysfunction in the absence of history or signs of brain injury." Other sources are not nearly as precise and, while they feel that dyslexia no doubt exists, it is difficult to defend a concept which cannot easily be defined, attributed to any specific etiology, estimated as to its prevalence or frequency, identified with a particular syndrome,

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or remediated with a specific technique. Neurological means related to the nervous system. Neurological problems, or dysfunctions, are those arising from disease of, or damage to, the nervous system. Where we are is at the point whereby we can isolate some of the symptoms which may *indicate* neurological involvement: Poor coordination, poor balance, random motion, spacial confusion, awkward or uneven gait, clumsiness, difficulty with writing, confusion in dominance, lapses of attention, hyperdistractibility, and extreme narcissism.

Visual disorders.—Extremely limited vision is not the problem of the handicapped reader. However, because the child sees with his whole being, vision may become a key to a fuller understanding of the nature and needs of the individual child. Visual functioning includes at least three basic elements: Visual-motor coordination, visual discrimination, and visual scrutiny and awareness. The visual skills of figure and ground, form and configuration, visual memory and recall, spatial, and temporal relations, and perceptual constancy are all factors to be considered when contemplating visual functioning. While the majority of evidence does not significantly relate visual functioning to reading achievement, a lack of visual efficiency may be a contributing factor to reading disability, and correction of this difficulty may make reading more efficient. Symptoms which may *indicate* visual problems include: Excessive head movements while reading, tension during close work, poor hand and eye coordination, headaches, dizziness or nausea, double vision, tendency to close one eye, tilting head to one side, frequent sties, excessive reversals while reading, and holding the page too close or too far.

Auditory disorders.—Extreme hearing difficulties are not the problem of the handicapped reader, but there may be a difficulty among those children with normal pure tone auditory threshholds who suffer from perceptual handicaps in discriminating speech sounds and in being able to utilize normal intersensory integration. These deficits may stem from central nervous system pathology or from faulty auditory experience. While there is no conclusive evidence that auditory acuity and reading achievement are closely related, corrective training to minimize this difficulty would appear logical. Symptoms which may *indicate* auditory problems include: Faulty pronunciation, continued poor spelling, frequent requests to repeat statements, lack of attention, unnatural pitch of the voice, tendency to breathe through mouth, tendency to favor one ear, earaches, frequent rubbing of the ear, and complaints of head noises.

Memory span.—A successful reader is one who is able to deal with oral and printed language symbols; the handicapped reader is not efficient in these processes. Even when auditory and visual perceptions are adequate, the handicapped reader is unable to recall associations and thus recognize the language symbols. This would indicate that memory and memory span must be considered in relation to reading. Research has indicated that deficiencies of memory span may have a negative effect on achievement in reading. Some children with short auditory memory span have been reported as having difficulty acquiring facility with language, confusing oral directions, encountering difficulty in learning to read, tending to be poor spellers, and to be generally slow in school progress. It would appear that inadequate memory span, in itself, can be a causative factor in reading disability. However, measures of memory span are, in many respects, measures of attention and concentration. Therefore, relationships between memory span and reading ability should be considered in terms of their possible relationships to other factors such as visual and auditory perception and emotional well-being.

Associative learning disorders.—The acts of visual perception involved in reading require that associations take place between the meanings of words and the word form itself. The handicapped reader is frequently unable to make these associations. If there is an associative disorder, the reader is then unable to make an association with the printed symbol and the process of perception initiated by word forms cannot reach its final stage: emergence of meaning. Causes for associative disorders may be a disturbance in visual or auditory perception, poor memory abilities, or emotional disturbances. Stauffer (1949) investigated the relationship between various sets of findings on associative learning tests and tests of general capacity. He concluded:

> Significant relationships exist between different associative learning test findings on retarded readers.
>
> 1. Retarded readers tend to achieve significantly higher scores by a visual-auditory mode of presentation than by a visual-visual mode of presentation.

2. Retarded readers achieve significantly higher scores on geometric test targets than on word-like test targets.
3. Retarded readers tend to achieve significantly higher scores on tests involving the use of visual, auditory, and voco-motor associations.
4. Retarded readers tend to achieve significantly higher scores on a verbal test of intelligence than on an oral vocabulary test (verbal opposites).

Social and emotional disorders—It is impossible to state definitively the role which emotions play in reading disability and the effect of reading disability on the organization of the personality. Some research has suggested that emotional reactions to reading may well be part of the child's environment before reading is initiated. On the other hand, the majority of investigators indicate that the emotional problems may be a direct result of the child's inability to achieve in reading. Certain conclusions, however, can be reached. First, it is unlikely that there is any single personality trait which is invariably associated with success or failure in reading. Second, the handicapped reader has difficulty in maintaining sustained abstract attention, often as a result of feelings of anxiety. These difficulties in attention and concentration will, in all probability, have a negative effect on the development of reading ability. Third, the handicapped reader is most often aware of his disability and this is reflected in symptoms of insecurity, instability, and poor home and school adjustment. These poor adjustments have particular relevance to the handicapped reader's incapacity for adequate means of expression and effective control of emotions under the stress of reading.

In summary, the handicapped reader is a child whose sensory equipment, including acuity, appears normal. Intelligence is usually average or better; the visual apparatus seems to be intact and functioning; hearing is normal; and medical examinations fail to show any glandular disturbances.

The handicapped reader is a child who may have difficulty with (1) motor development, (2) tactile development, (3) auditory discrimination, (4) language development, (5) visual discrimination, (6) various types of memory development, and (7) concept and cognitive development. Unfortunately, investigations of the handicapped reader have tended (1) to focus on groups without adequate investigation of the variability within the groups, and (2) to study one possible factor of difficulty without adequate attention to others. The handicapped reader should be considered as one whose condition is due to a number of causative factors. A handicapped reader may have visual, auditory, or tactile perceptual-motor deficits, resulting in poor discrimination and form perception ability. A significant point, however, is that not all perceptual handicaps are due to organic causes. Poor perceptual ability will also result from emotional distress or emotional involvement.

Where We Should Be

Rather than continuing to seek out and isolate any single causative factor, we should be aware of the integration of factors and focus our attention, diagnostically and remedially, towards the realization of this concept. A possible visual-perceptual difficulty may be related to failure in reading. Failure to probe further to determine associative learning abilities, thinking abilities, personal adjustment, etc. may lead to a remedial program that will develop visual functioning but provide little, if any, assistance to the reading handicap. The continuation of a search for any single factor is meaningless in light of what has been learned. Correction of the reading handicap is dependent upon the elimination of those factors which have interfered with learning and strengthening those areas insufficiently developed to allow achievement. It is essential that we never disregard the importance of any possible contributing factors.

Diagnostically

Initial responsibility for identification of the handicapped reader, and possibly his subsequent achievement, is that of the classroom teacher. What are the realistic expectations of a classroom teacher as a diagnostician? First, an understanding of what constitutes good reading, and a knowledge of each child's present achievement in reading is essential for each child within the classroom. The first step is to identify the child's reading abilities in terms of establishing the instructional level. Knowledge of this level will lead to other kinds of information: General language level, attitudes about reading, thinking abilities, basic sight vocabulary, word analysis procedures, attention and concentration abilities, and possible physical disabilities among others. In addition, the teacher should be aware of the point at which each child can function independently in order to provide free reading and other independent assignments. Finally, and of particular importance in the identification of the handicapped reader, the teacher needs to know the child's hearing comprehension level—the point at which he can understand materials which are read to him. If a child can understand the materials when the teacher reads them, with good teaching he should be able to learn to read them himself.

An evaluation of a child's reading abilities should include close examination of his word analysis procedures. The teacher should be aware of those techniques that are used spontaneously and independently as well as those techniques that can be applied after instructional guidance. Because there is no such thing as reading without comprehension, the teacher should also be able to measure the child's use of thinking abilities. Can a child understand the purposes established for reading? Can he make an inference, follow a sequence, draw a conclusion, or deal with cause and effect relationships? These abilities must be evaluated as well.

The classroom teacher can accomplish this kind of evaluation through several approaches. First, there are the subjective impressions the teacher obtains as the child is being taught on a daily basis. Daily instructional activities are revealing to the teacher who has an understanding of the reading process. In addition, standardized test results, various intelligence quotients, family history, health records, etc. can provide the basis for tentative judgments. Day-by-day observations should make the teacher aware of possible physical, emotional, and neurological problems. Symptoms such as poor coordination, excessive reversals, lack of attention, or nail biting, etc. should not be ignored. Knowledge of possible causes and their accompanying symptoms should be a part of a classroom teacher's background of information, as well as the realization that any child who exhibits one or two of these symptoms should not be considered as a neurologically damaged or emotionally disturbed child.

The classroom teacher's primary function is that of acting as the initial "screener" in relation to the identification of the reading handicapped child. If the classroom teacher has done his best in terms of diagnosing the difficulty and in terms of providing a remedial situation, but is still unable to reach the child, it is then his responsibility to seek additional help. If it is suspected that an auditory problem may be preventing the child from learning, the teacher should be obliged to refer for an auditory examination. The same is true for suspected difficulties in the intellectual, neurological, emotional, or physical areas. In all areas in which the teacher cannot make a final judgment, he should request help. Specialists should be available to provide this help.

The situation in which we should be operating, then, is one in which the classroom teacher is aware of the reading process, the factors related to failure in reading, the symptoms indicative of possible failure. The classroom teacher should be one who has the ability to provide informal, ongoing diagnostic procedures, and has access to clinicians who will be able to provide intensive diagnostic procedures to those children who have complex reading problems, whose disabilities are more severe in nature, or who are troubled more by a learning disorder than by a reading deficit.

Because of the complexity of factors related to the reading handicapped child, it is imperative that diagnostic measures be administered individually and that the clinician (1) is familiar with the ideology of multiple symptoms, and (2) has the capacity, and tools, to seek out possible solutions. The clinician should be interested in determining:

1. What are the child's reading strengths and weaknesses?
2. Does the child have the mental ability to be more successful?
3. What are the probable causes of the child's reading disability?
4. What program of remediation should be initiated?

To determine the child's immediate recognition vocabulary and use of word analysis skills, informal measures that include lists of graded words should be administered. These lists should be samplings of common vocabulary. The inclusion of an informal reading inventory is an essential aspect of the diagnostic procedure for many reasons. First, the original referral is usually because of a noticeable disability in the reading area and it is therefore of great importance that as much as possible be learned about the strengths and weaknesses of the reading process in order to establish a remedial program. Second, in addition to establishing independent, instruction, frustration, and hearing capacity levels, important related information can be obtained from an inventory that includes both oral and silent reading responsibilities. Consider, for example, information related to the child's background of experience, span of attention, thinking skills as obtained from questions that tap various levels of abstraction, use of context as a clue to word analysis, oral language facilities, and re-reading abilities among others.

Although there are many possible measures of mental ability that could be considered, a remedial clinician should be prepared to administer individualized measures that provide insight into as many different types of mental abilities as possible, rather than ones that provide a single score through a single stimuli. Tests of verbal ability (range of information, common sense judgment, arithmetic reasoning, abstract reasoning, quality of word meaning and auditory memory) and tests of performance ability (alertness to environmental details, spacial perception and visual-motor organization, planning and anticipating social situations, manipulative ability and persistence, and concentration in learning new material involving visual-motor coordination, speed, and memory) should be part of the remedial procedure. It is significant that research findings indicate the handicapped reader has significantly lower scores on tests of verbal ability when compared to tests of performance.

In addition, handicapped readers tend to indicate selective retardation in measures of arithmetic reasoning and auditory memory.

Comparisons between reading performance and capacity should be made in order to determine whether there is a significant difference between the results. The handicapped reader is one who is, minimally, within the normal range of intelligence with severe difficulties in word recognition and lapses in attention and background information. Possible causes of the disability should next be examined.

Screenings in vision which go beyond far point vision should be part of the clinical procedure. A visual screening procedure should include tests of near point visual acuity, far point visual acuity, fusion, vertical and horizontal imbalance, stereopsis, and color. Screenings in the hearing area can be achieved through the use of an audiometer. This device makes use of different frequencies of sounds presented at different intensity levels. While vision and hearing screenings are normally thought of as functions of the health service facilities, it should be remembered that they can also be administered by the clinician. The purpose of the screening is to refer a possible visual or auditory problem to an expert in the field. This can be accomplished by either the clinician or the school health official.

Apart from the child's ability to hear, the clinician should also investigate auditory perceptual abilities. Components of the auditory modality include auditory acuity, speech discrimination and auditory memory and sequencing. Acuity can be measured through a discrimination test. A child with difficulties in this area may have difficulty in a program that emphasizes sound/symbol relationships. Additional tests that measure auditory memory should be administered, as the reading handicapped child often has difficulty retaining words and sentences.

Visual perceptual abilities should also be considered. Through the copying of configurations, visual-motor abilities can be evaluated. Measures such as these reenforce the concept of viewing the reading handicapped child as one with multiple causative factors. A study (Koppitz, 1964) states that if a child has reading problems and reveals perceptual immaturity or malfunctioning, then two possibilities present themselves. First, the child may be slow in his perceptual development or be of limited intelligence. Second, there may be perceptual deficiencies present caused by poor visual functioning due to organic problems, to emotional problems (if auditory perception has been ruled out), or to dull, normal children living in an educationally non-stimulating environment.

Perceptual-motor as well as motor patterns by themselves are additional areas of consideration for the clinician. The significance of muscle pattern in relation to reading and learning ability has not yet been fully determined, but there is evidence which indicates that if motor patterns are not causative to reading development, then they are at least correlated. Specific diagnostic factors include: Spacial orientation and projection, gross and fine musculature, body image, unilateral, bilateral, and cross-lateral movements, symmetry, directionality, and minimum muscular fitness.

For the purpose of detecting the possibilities of maturational lag or neural problems, but not for the purpose of drawing conclusions of a neural nature, screenings can be administered in the following areas. Measures of directionality or right-left orientation may indicate an inefficiency in the learning process; particularly in a child who is 9 years old or older.

However, we do not know whether the relationship is causative or correlative. Remedially, teaching a child lefts and rights does not do much, if any, good in helping him become a better reader. Of significant importance to the concept of directionality is the ability to utilize attention and concentration abilities. The research literature concerning measures, and meanings, of dominance and laterality, tends to be confused concerning its application to a reading disability. Tests of laterality may not actually be measured by the tests usually given for this purpose because handedness, footedness, and eyeness are peripheral manifestations and may not actually indicate cerebral dominance. Conclusions drawn from these measures must be made very cautiously, particularly in terms of their relationship to the reading disability.

Poor memory for sequence of letters, numbers, or words are often found in children of otherwise normal mental ability. A short memory span can be a causative factor in reading ability or a symptom of some attention defect such as an emotional disturbance. Severely retarded readers are characterized by a tendency toward certain patterns of achievement on tests of memory span with varying test materials and modes of presentation. Screenings for memory span should include various modes of stimulation (auditory, visual, multimodal), different natures of stimuli (concrete and abstract), and areas to be measured (attention, concentration, persistence). Results of these screenings should focus on the presence of any patterns obtained from the measurements: Attention versus concentration versus persistence; reliance on an auditory sensory modality or a visual sensory modality or mixed modalities; ability to deal with concrete stimuli, abstract stimuli, or a combination of both.

Levels of performance in perception or ability to form and retain associations should be considered. Not only as an isolated factor which may be related to reading ability but as a factor closely related to other factors. Relationships between association may be affected negatively by emotional disturbances, inadequate vision or hearing, or brain anomalies that may bring about the same kind of perceptual disorders. Screenings in this area should include opportunities to associate meanings with visual clues, auditory clues, and auditory-visual clues. Here too, attention should be directed to the presence of any pattern obtained from the measurements: auditory versus visual stimuli; word-like symbols versus geometric symbols.

Remedially.—The causes of reading disability are many. The remedies lie in improved, especially highly individualized, instruction. This idea negates the consideration of the classroom teacher as the primary source of remediation. Time and often the lack of specific approaches make the classroom an inappropriate setting in which to deal with the problem. Resource rooms in which the child spends part of the day receiving remedial assistance under the guidance of trained personnel offers a better solution, but the child must return to the regular classroom and thereby face the possibility of continuing frustration. Optimumly, the handicapped reader should spend his day in a setting that provides small group or individualized instruction based on the knowledge of each child's abilities and specific needs, that provides an instructor who is highly trained in the use of specific remedial techniques, and that provides ongoing evaluative procedures. Optimum conditions should always be the ones toward which we strive.

The temptation to utilize an existing "remedial" program is perhaps the first obstacle to be overcome. Commercial programs are established to deal with large populations; the handicapped reader is a unique individual in terms of his disability and thereby in terms of his remediation. Individualized instruction must be the framework under which the teacher operates. A small group of handicapped readers, all utilizing the same approach and materials to word-learning, are more than likely meeting the needs of the instructor.

Approaches to remediation, not materials, should be the initial consideration. Criteria should be established so that there is consistency in terms of the program and in terms of the materials selected. Areas of consideration should include these principles. Learning takes place through experience. Learning takes place in a setting of physical, mental, and emotional well-being. Learning proceeds from the known to the unknown. Learning proceeds from the concrete to the abstract. Learning is most effective when the material is presented in situations comparable to those in which they will be used. Learning is dependent on the degree of motivation existing.

The application of these principles to the insights we have obtained through diagnosis can lead to the development of a significant program for each child. As an example, if a child's memory span is very short—if he can keep in mind a sequence of only three or four letters—he may have difficulty in remembering larger words. This difficulty is especially likely to happen if a sound-blending method of teaching is used. Therefore, when selecting a word-analysis approach, children with short memory spans will usually do better with methods that teach words as units than with letter-by-letter methods.

Another example of applying remedial principles to individual needs can be illustrated by the child who has difficulty in learning to associate meaning with visual symbols and, particularly, with word forms. Dr. Grace Fernald recognized this need for additional clues for the establishment and retention of associations when she recommended the use of a word-learning technique which involved visual, auditory, kinaesthetic, and tactile stimulation. The VAKT approach to word-learning is an excellent example of (1) knowing the individual child's needs, (2) providing individualized remedial assistance based on these needs, and (3) following the principles of learning.

Another obstacle that must be overcome is the concept that reading is a number of subskills each of which can be isolated and treated. Reading is a process. A process that involves the utilization of a number of abilities simultaneously. The handicapped reader is an intelligent being capable of reaching this conclusion, but not when his remediation is splintered into unrelated fragments. The handicapped reader will undoubtedly display severe difficulties in all areas of word analysis: phonics, linguistics, structural analysis, etc. Remediation, in isolation, that focuses on only one aspect of word analysis is depriving the handicapped reader of due process. And, in a larger sense, a remedial program that develops all word analysis processes but ignores other means to word perception (development of memory words, use of context, and use of the dictionary) is also a program of deprivation.

The handicapped readers will also display deficiencies in their thinking processes. A remedial program that does not include the development of these abilities, or isolates them from the reading process, is not a suitable program for the handicapped reader. For these reasons, and others related to these children's needs, the reading program should be an all-inclusive one, geared to meet individual or small group needs, and capable of being manipulated to meet needs that arise on a daily basis. The language-experience approach is an excellent example of a reading program for the handicapped reader in that it provides an opportunity to develop the process of reading, is capable of meeting individual needs, and follows the established principles of learning. So too is a modified basal approach. Modified in the sense that it understands who and where the children are and is used in such a way that it focuses on these understandings rather than the demands found in the teacher's manual.

Yet another obstacle that must be overcome is the concept that the handicapped reader can learn through a ditto sheet, tearout sheet from a workbook, or a cassette tape; he cannot. The handicapped reader must have the confidence and stimulation of an instructor. An instructor who is aware of the child's particular disabilities and who will initiate an appropriate program based on these needs. An instructor who will lead the child to form the generalizations he is capable of making, who will utilize meaningful and related material, who will realize the need for continued and varied reenforcement techniques, and who will lead the child to realize success and enthusiasm for additional learning. A learning center is not an instructor, a programed reader is not an instructor, a workbook page is not an instructor, a cassette tape is not an instructor, and a reading aide is not an instructor. Were the child able to learn through these processes he would not be a handicapped reader. While all of these can be used for reenforcement, they cannot be used for instructional purposes. Only an aware, concerned, trained individual is capable of teaching the handicapped reader.

In summary, where we should be is at the point where trained clinicians have the responsibility of identifying all the possible contributing factors and then relating these findings systematically in order to establish an instructional program in such a way that these factors are overcome. Factors outside the realm of an instructional program should be referred to those who can provide the specialized assistance. Additionally, we should be at the point where personalized, specialized help can be provided through trained personnel in small classroom settings. Remedial emphasis must be placed on those approaches that are best suited to meet individual needs rather than the consideration of what materials are available into which the child can be plugged. Less than this is an invitation to the continuance of the camouflage techniques we have so long been utilizing.

How To Get There

Recognition of the handicapped reader is, of course, the first essential to be considered. However, this recognition cannot take the form of espousing the handicapped reader as being representative of a particular sexual, racial, or socioeconomic group. It is essential that the handicapped reader be pictured as an individual with specific needs who can be remediated under the right conditions. Emphasis should not be on the continuation of determining the appropriate label for this individual or of establishing formulae to determine how far below grade level he has fallen, or even what specific commercial programs are best suited to meet his needs. Rather, the emphasis should be placed on the multicausative concept as the basis of the disability along with the realization that this child can only be compared to his own capabilities. Continuing arguments about specific causes and specific materials only help to delay the process of recognition and thus retard the possibility of remediation. This is not to negate the continuation of related research but, here too, emphasis should be placed on the incorporation of these new findings with what has already been learned.

There have been indications lately of a growing interest in the handicapped reader, providing one is able to dismiss the various labels used and to deal with the ideology. This is evidenced by continued interest in the problem through the media and through larger administrative units. Recently, two nationwide TV programs were devoted to the problems of "learning disability." While the handicapped reader was not defined as such, it was easy to locate him on the screen.

Newspaper and magazine articles continue to focus attention on the problem and to offer various solutions. While these approaches do make the public aware of the problem, they tend to be superficial, and to provide only one recourse to remediation. They also tend to cause unwarranted parental anxiety. However, they do bring a certain awareness to the public and lead to additional insight for those who want to know more.

Recognition in my own State, Pennsylvania, is also evident. Intermediate Units (IU's) have been set up to educate children with reading handicaps; although again, this is not the name used when titles and funds are provided for these classes. The IU is an organization set up to service a number of school districts which, individually, would not be able to finance special education programs. The children from the various school districts are often bused to centers and taught under IU personnel. The State also provides funds to special institutions that service children with "neurological impairment" and "social and emotional adjustment problems." Here too, the titles are different, but the underlying factor, academically, is a reading disability. Federally funded reading programs are also abundant throughout the State, providing summer school sessions, resource centers, additional staff members, and inservice programs to teachers, aides, and parents. And, while these programs often face the sword of being "innovative" in order to be funded, they eventually focus on the problems of the handicapped reader. Finally, children from private and parochial institutions within the State are also eligible for special help if they have a reading disability. These programs are financed by the State and serviced by agents selected by the local administrative unit.

Recognition, and even funding, do not then appear to be the greatest problems facing the handicapped reader. We know he exists, and we frequently find time, space, and money in our attempt to meet his needs. Only we don't really meet his needs and our failure to do so is most often based on our own inabilities to understand and educate him. In my State, a teacher can graduate with a degree in elementary education that requires only one course in reading; at the secondary level no courses in reading are mandated. It would be less than fair to expect this individual even after 2 or 3 years of on-the-job-training to possess those insights that would enable her to evaluate competently the handicapped reader, let alone attempt the beginnings of a remedial program.

Interviews and workshops with staff members of Intermediate Units and State funded institutions reveal that reading is the area that receives the greatest amount of instructional attention and the one about which they feel most inadequate in terms of developing. Degrees with emphasis in learning disability, emotionally disturbed, etc. leave them ill-prepared, they claim, to offer the specific insight and remedial procedures that they know their students must receive. Instead, they tend to rely on already existing materials, usually used by everyone in the class, and to feel frustrated about what they are doing because they realize there must be more that can be accomplished.

Various realizations must be made in order to reach some reasonable goals. Dyslexia means, literally, the inability to read; so the dyslexic child and the reading handicapped child are one and the same. A learning disability is most often identified through a reading disability and the reading disability usually receives the greatest amount of remedial attention; so the learning disabled child and the reading handicapped child are one and the same. Whatever the label, it is obvious that "normal" approaches to reading cannot be utilized. It is equally obvious then that the individuals responsible for remediation and instruction must possess the skills necessary to effect change.

State and local institutions must reach the realization that teacher training is the core of developing not only remedial programs, but of all reading programs. State certification requirements should be closely examined in terms of training and responsibilities. Is the first-year teacher able to "teach" reading? Is the specialist able to provide individualized, unique remedial instruction? Are supervisory personnel well grounded in terms of research, curriculum, and materials? Draw your own conclusions, but it is unlikely that any changes will be brought about until the realities of the situation are closely examined in terms of the real responsibilities and the training that is provided to meet those responsibilities. Training in special education is not adequate preparation for dealing with the handicapped readers. Special education personnel, particularly those who work in situations labeled "learning disabled," are aware of this and, in several instances, have initiated joint special education/reading certification programs at the graduate level. This represents an honest examination of who the child is, what his needs are, and how they can best be met.

Local school institutions should incorporate the same sort of examination procedures. What are the major goals for those children placed in special learning situations? What background does the instructor bring to the class in order to reach these goals? Does hiring someone with the right title, but the wrong experiential background, really help these children or does it just keep budgetary costs down? It would be wise for local administrators to remember that the handicapped reader has the potential to become a contributing member of society. Just how much money are we saving when we fail to remediate him properly?

Failure to recognize the need for highly trained clinicians and instructors will result in failure for the handicapped reader. Specialized training takes many forms. Several 1-day workshops spread out over the course of the school year do nothing except create additional anxieties for those teachers who are aware that they need to know more. Intensive, prolonged inservice programs that focus on causes, diagnosis, and treatment can help, but these are rare birds indeed and often need additional input that is not always readily available.

The responsibility for accepting this training must then fall on the colleges and universities. Their initial efforts should be centered on educating the certification boards and administrative units to the actual classroom responsibilities in hopes that these agencies will be able to understand the needs of the handicapped reader and the programs that must be provided for him. Course work, within the department or in jointure with other departments, should focus on practical situations as well as theoretical ones in order to provide as many firsthand experiences as possible. Awareness of the problem is an unsatisfactory solution. Application of specialized approaches through specialized personnel is the only hope for the handicapped reader. We won't "get there" until we have committed ourselves to this reality.

Suggested Readings

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CHAPTER X—SUMMARY

This chapter discusses the development of language in children and the evolution of listening, speaking, reading, and writing skills and their relation to the child's knowledge of his or her world. There are discussions of the various handicapping conditions such as deafness, blindness, physical handicaps, speech impairments, mental retardation, and learning disabilities and how they effect the language development in children. The barriers created by handicaps to listening, speaking, reading, and writing frequently cause the child to be evaluated and placed in inadequate educational programs. The relation between the child's knowledge of the world and his ability to use both expressive and receptive language forms is explored. It is not enough to say that the eyes can take over the role of the ears for the deaf child and that the ears and/or touch can take over the role of the eyes for the blind child or that the mentally retarded can achieve but at just a slower pace. It is important to understand just what a handicapping condition means and how it affects the basic tools of learning, listening, speaking, reading, and writing. The assumption is that before reading can be developed a good basic language system must be developed in the learner.

A careful study of the reading problems among handicapped learners is of importance to all teachers since it enables us to better understand the reading process and its relation to the language and experience in all children.

CHAPTER X

Reading and the Handicapped Learner

by Frank B. Withrow
Special Assistant to the Deputy Commissioner
Bureau of Education for the Handicapped
U.S. Office of Education
Washington, D.C.

Margaret S. Withrow
Research Associate
Computer Graphics Research Group
Ohio State University and
Gallaudet College
Washington, D.C.

The ability of the infant to recall sensory experiences and to organize them into meaningful wholes is the beginning of the cognitive process. Early memory is based upon sensory experiences that are recalled through rich images which reenact the past. Language is gradually associated with these experiences and eventually becomes the dominant form for conscious thought. Normally a child learns to listen and then to speak. At a considerably later time he begins to associate his listening and speaking skills with the development of reading and writing skills. The effective development of speech, reading, and writing is dependent upon a good development of receptive language.

We will examine the problems which may occur with handicapped learners when the normal sequential development of listening, speaking, reading, and writing does not take place. The failure of educators to fully understand the importance of this sequential development often leads some handicapped children with language problems to be misdiagnosed as having reading problems. The establishment of a comprehensive receptive language is a prerequisite to the development of reading.

Language Development

Because language is so much an integral part of our thought processes it is difficult to separate language from its meaningful referent experience. Thorndike (1917) questioned whether deaf people could think without speech and aural/oral language. For the next 25 years psychologists debated whether there could be thought without language. Piaget (1926) examined the relation among experience, thought, language, and speech. He demonstrated that cognition and organization of a child's world takes place prior to his or her association of language and speech symbols to those developing concepts. Wendall Johnson (1946) considered speech and language to be the road map to the real world of sensory experiences. Each individual is a unique person with his own set of experiences, therefore communication through language is always incomplete. Likewise, our experiences are influenced as we move through time. Consequently, our understanding of the world in 1970 may be different from our concept of the world in 1976 and our language referents different. Language referents are developed through exploration by the infant of his or her environment through taste, touch, movement, sight, and sound. These sensory experiences are organized into concepts about the child's world and eventually associated with language symbols. In the early stages of this memory process the young child may recall past experiences as rich sensory images of the real event. This bank of sensory imagery eventually is reduced to cues which become signs and symbols for the child's world. Language becomes the shorthand for sensory images and the most common level of conscious thought.

What happens to the language development process when a child has a sensory or mental handicap? When a child cannot see, hear, or process stimuli in a normal fashion, his or her language development will evolve differently from the nonhandicapped child. Handicapped children do organize their world into meaningful wholes even though they may not follow either the sequence of development or the same format of their peers. The child without sight may structure his world and language solely in auditory formats. The child without hearing may organize his language system into visual symbolic formats. Almost all handicapped children develop language systems even though some of them may be esoteric and known only to their immediate family.

Early educational opportunities must be provided to all handicapped learners so that they can be encouraged to develop language skills which are the common symbols used in their society. Depending upon the nature of the handicap, the degree to which normal language formats are possible may be severely restricted. The severely orthopedically handicapped child may never be able to develop expressive skills which are readily usable. They may be limited to expressive communication aids which restrict both their speech communication and quality of expression. The deaf person may be restricted to receptive communication skills which are subject to major errors through ambiguity of the spoken or interpreted stimuli.

The handicapped individual may be required to substitute the function of one sensory system for another. The blind may have to rely upon touch to read tactile stimuli rather than vision for reading. The deaf substitute vision for audition in receptive communication of lipreading of speech or of signs. The severely physically handicapped may substitute gross motor activity that activates expressive communication aids which substitute for speech. Sherrick (1974) describes the use of one sensory system to handle the function of another system as metastatic techniques. He is cautious in his discussion about such systems and suggests that the following questions should be asked about the design and use of metastatic systems:

1. How good is the substitute sensory system in taking over a job usually performed by another sense and how effectively is the new signal assimilated with other sensory systems used by the handicapped person?
2. How like the original stimuli is the substitute or transformed stimuli?
3. How different is the substitute sensory system than the original system in its ability to handle stimuli?

These sensory substitutions may mean that handicapped learners will have difficulty in achieving certain aspects of language skills. Some visually impaired learners will never read print and some hearing impaired learners will never hear speech. This does not mean that they are not capable of developing comprehensive language skills, but it does mean that language development may be different for them and may require different educational techniques.

For all children the ability to use language in its various forms is the foundation for success in school. The severely speech impaired, hearing impaired, visually impaired, retarded, orthopedically impaired, seriously emotionally disturbed or specific learning disabled child almost always has some communication problem which serves as a barrier to his or her full achievement in school. Obviously, the communication problem varies in degree and kind with the specific handicapping condition.

Deafness and autism are two major barriers to the normal growth and development of receptive communication skills. Cerebral palsy or severe physical handicaps may cause expressive language development to be delayed. The differences in hearing impairment and severe physical handicaps contrast the differences in receptive and expressive limitations. The severely physically handicapped individual, if he or she has intact vision and hearing, will develop appropriate receptive language. This child may be expected eventually to be equal to or superior to his or her nonhandicapped peer in developing communication skills. Some seriously physically impaired children may develop superior communication skills as a unique means of self-expression. However, if the severely physically handicapped child does not have use of his or her speech musculature, expressive language may be restricted or totally nonfunctional. On the other hand, the hearing impaired child who is not limited by mobility, meets communication barriers at every turn since he or she is surrounded by a world which is dominated by aural/oral interactions. This is true even when the deaf individual masters comprehensive bilingual skills in speech reading, speech, sign language, reading and writing. Live communication carried on by visual signals, as Sherrick points out, is different from aural/oral communications through audition.

To elaborate upon the difference between visual and auditory language symbols it is useful to think of live communication systems and printed communication systems. Live communication systems are those which are interactive and rely upon the spoken word. They are characterized by stimuli which are global, nonstable, irreversible in time and difficult to mask. For example the spoken word "Trafalgar" can be uttered in darkness and light, from any direction and still be understood, yet it is time and sequence bound. It is meaningless if pronounced backwards and is dependent upon each phoneme being pronounced in a specific sequence. The sound stimuli envelope is a one-way sequence within a specified learned aural code. If the timing varies significantly in the spoken word, then the word is no longer recognized by the listener. There is a range of acceptable time and energy variations in the speech sign which will be understood as acceptable code variants that allows for understanding different voice qualities. Once the spoken word is transformed into the printed word different characteristics come into play. Printed communication systems are characterized by being unidirectional, stable, spatial, and require light sources. The printed word is easy to store and index. It does not matter how it is printed with respect to time. Whole lines and even pages or multiple pages can be printed simultaneously. Decoding does require in the English language a left to right order and pagination, but even this is characteristic of the chosen language style rather than an absolute. The spoken word is temporal, global, and fleeting in its presentation whereas the printed word is unidirectional and spatial.

Until the age of modern electronics the printed word was the only reliable means of storing the spoken word. Today communication devices allow us to store recorded speech and to also store print in a temporal mode. The teletype used by the deaf for telephone conversations allows for interactive print exchanges. The alpha/numeric terminal to a computer allows for temporal interactive conversations. As interesting as these new systems are with respect to what they may be able to do for the handicapped, we will not concern ourselves with them in more detail in this paper. We will confine most of our discussion to the spoken word and to the printed word.

If our assumption that success in the American school system is dependent upon the ability of the learner to communicate is accurate, then we need to examine the communication processes and barriers of given handicapping conditions to those processes. Communication can be defined as an individual's ability to publicly share private experiences. This assumes an ability to store experiences in a memory system and that such storage of experiences enables the individual to compare current with past sensory experiences. In the infant and young child these stored memories may be close to the original experience. They may be rich in visual, auditory, tactile, and olfactory images. In early childhood we retain a high degree of images which parallel the real world. The young child quickly associates clusters of experiences and reduces the clues required to be knowledgeable about a given event. These events eventually are associated with the words and the syntax of a given language. The spoken word stands for the experience in the memory of the child.

Listening and speech skills become convenient storage units for memory and expression. During childhood the individual gradually replaces imagery with the arbitrary symbol systems of his or her language. By the time the child is 5 years old he will have developed a minimum vocabulary of 4,000 to 5,000 words and he will have a workable knowledge of the syntax of his or her language. The kindergarten child will have associated a wide range of real life experiences with her or his language. The average child is bathed in an ocean of word experiences. Word experiences are defined as either hearing or speaking a word. Each year the average child has approximately 15 million word experiences. If these estimates are correct, a child entering kindergarten will have had between 75 and 80 million word experiences. These word experiences will vary in richness, complexity, and style depending upon the child's family and environment.

The age of mass communication has brought about a new era of word saturation. Each television station that broadcasts for 20 hours per day creates approximately 120,000 to 150,000 word experiences daily. Sesame Street and other children's television programs broadcast at the rate of about 5,000 words per hour. These word experiences differ from those experiences of young children in past generations.

Radio and television broadcasts are one-way passive communication. On the other hand the word experiences of television can be controlled to maximize the possibility of the association of words and language to their referents in real experiences. The average preschool child watches approximately 35 hours of television each week which means that he has 175,000 passive word experiences weekly and 91,000,000 televised word experiences each year.

It is interesting to speculate whether a child who only viewed television would develop receptive language abilities. Such a child may or may not develop expressive language skills. The severely physically impaired child who is nonmobile and who cannot control his or her speech mechanism may develop a wide range of receptive language skills. This assumes that the child's vision, hearing, and mental ability are intact. While we know of no child who has only experienced language via television we can learn much through the examination of handicapped children and how they learn. The nature of their handicapping condition frequently provides us with the knowledge of child growth and development based upon sensory deprivation. The ability of the human brain to adapt to great deprivation and to create a whole and integrated human being is most interesting.

Characteristics of the Learning Processes of Handicapped Children

There are approximately 7 million school aged children who have some form of handicapping condition. Not all of these children are currently in school nor are those who are in school receiving appropriate education. The Education for All Handicapped Children Act of 1975 mandates that all handicapped children must be in educational programs by September 1978. It further states that this free public and appropriate education must take place in the least restrictive educational placement. For mild to moderate handicapped children this means that they may be educated along with other children in their neighborhood schools. Some of the more severely handicapped may continue to require very specialized educational programs. However, even the most severely handicapped, if they master the basic tools of the educational system, i.e., competency in language skills, may be able to function on an equal basis with their nonhandicapped peers. The law mandates that States provide the educational resources required to meet the individual needs of each handicapped child. Some of the basic efforts required to remove the barriers to language and reading skills for different types of handicapped children will be discussed in the next section. It is important to remember that each handicapped child is different and that we can only indicate general tendencies concerning their learning processes. It would be grossly inaccurate to stereotype hearing impaired children, visually impaired children, retarded or other handicapped children.

Physically Handicapped Children

One of the major characteristics of physically handicapped children is limited mobility. While this may tend to limit their range of personal manipulative experience of their environment, if their sight, hearing and mental abilities are intact they should develop normal receptive language skills. Even for those children who are so seriously impaired that they have limited expressive language abilities, receptive language and reading often develop adequately. The problem is one of interactive communication so that they can express their knowledge. Without expressive language or with severely limited abilities some of these children are misplaced and misunderstood. In some instances a limited ability to manipulate the environment to demonstrate knowledge may result in an inappropriate evaluation and educational placement.

A dramatic example of this handicapping condition was recently portrayed on the NOVA television series. It was the story of a cerebral palsied man who struggled throughout his life to break through the physical barriers of his own body so that he could communicate. His story is a great tribute to the perseverance of one man to find self-expression. He was in his twenties before he found one other person who could understand his attempts at speech. This was another cerebral palsied man who was in the same institution. Over the years they learned to communicate. The television program was based upon his autobiography—a remarkable book written at the rate of two to three lines per day. He would dictate his thoughts to his friend who painstakingly transcribed them. These

notes were turned over to the ward nurse who typed them into final form. At last, after a lifetime, Joey communicated his thoughts to others through his book and his television show. Among the severely handicapped there are minds locked in physical straitjackets that want and need to find knowledge through reading and ways to express their ideas and thoughts.

Hearing Impaired Children

The lack of hearing is one of the major barriers to developing language in a society whose language is based upon aural/oral symbols. The base for language usually develops through hearing words associated with experiences. It is obvious that this is not the only way for language to develop since hearing impaired people do develop language. Deaf infants organize their world and associate experiences with symbols. Since the deaf infant must make these associations through the sense of vision rather than hearing, the total symbol system may be different. This is not to say that many hearing impaired children do not develop an effective system for using their residual hearing, but the profoundly deaf individual will have visual symbols as his major symbol system. It is rare, but there are examples of deaf children who have print as their first language experience. Parents and/or tutors have surrounded them with labels for the items in their environment. The limitations of print as an interactive communication system are obvious. Writing and reading in an interactive mode is cumbersome and difficult. In an attempt to overcome this problem fingerspelling was developed as a means for writing in the air. Even this system falls short of being comparable to aural/oral systems with respect to ease of interactive communications. The hearing impaired and especially the profoundly deaf must rely upon visual rather than auditory systems. Speech reading, sign language, and fingerspelling are all visual symbol systems and therefore take on the characteristics of vision rather than audition. Vision requires directional attention and a light source, whereas audition is global and difficult to mask out even when it is desirable to do so.

The profoundly deaf learner is frequently characterized by delayed development in all phases of communication, direct discourse, language development, reading and writing. This delay is not the result of a lack of the deaf person's mental capacity to generalize his sensory experiences and to code them into language symbols. Given effective early education and an opportunity to enter into interactive communication, the deaf child can be expected to develop language skills comparable to his hearing peers.

The fact that so few deaf children achieve adequate levels of language skills is a result of the inadequacy of the educational system to provide them with language experiences. We have the knowledge to surround the deaf child with visual language symbols closely articulated with auditory stimuli which can maximize the synergistic relation between vision and their residual hearing. We need to know more about the psychological processes involved in the learning of a language through the visual system.

Most deaf people use a combination of symbol systems as their language formats just as the hearing person could be said to have a listening language, a speaking language, a reading language and a written language. We have discussed the listening language as the first and primary language of the hearing child and we would like to explore for the purposes of this paper the first language of deaf children. There are three classes of deaf children with respect to first languages. A deaf child's first language may be basically fingerspelling, sign language, or speech reading combined with residual hearing. Many hard-of-hearing children use their residual hearing to form their first language base and therefore we will discuss them as a separate subset of the hearing impaired.

Theoretically the deaf child who uses fingerspelling as the basic symbol form of his or her language is print based. The code for their face-to-face communication has a one-to-one correlation to the printed word. For children whose first language is fingerspelling, reading skills should be comparable to their level of language development. Fingerspelling has, of course, the limitations mentioned earlier of the visual system for interactive communication. Fingerspelling also has a limitation of speed. The average fingerspeller has rates of about 80 words per minute as compared to 140 words per minute in average speech. Fingerspelling alone is a slow means of expressive language. Even with fingerspelling the deaf child's language development may be far behind his cognitive development. Therefore many events and experiences in his or her life will be understood, but not reduced into language. Fingerspelling is a symbol system which is common to the systems of the aural/oral society.

For those deaf children who have the language of signs as their first language base there is a need to relate the esoteric sign system to a different arbitrary print symbol system. The association of the sign to the printed word is comparable to the association of the spoken Chinese words relation to the Chinese symbol. As in other symbol systems the child may have referents for signs in his or her expressive system that are not known to him in his print system. He may also have printed words for which he has no sign. Sign language, unlike fingerspelling, is not a slow means of communicating. Signs are large and visible symbols which can be transmitted at a relatively rapid rate. In some instances communication can be more rapid in signs than through speech. Some of the limitations of sign language are its relatively limited vocabulary as compared to English and its different syntax. Sign language can be an independent communication system completely separate from any other system. It is a highly functional system which is used by most deaf adults to communicate to other deaf people and to hearing people who are bilingual in signs and a spoken language. Because sign languages are associated with the written language of the country in which they are used the same sign can be "work" in English and "trabajo" in Spanish. For this international aspect of sign language airline hostesses have suggested that it be learned by all international flight staff.

For the deaf child whose first language is based in speech reading and residual hearing, the problem of reading is somewhat comparable to that of a hearing child. The task in this case is to associate the speech read word with the printed word as the hearing child associates the spoken word with the printed word. There is not a one-to-one correlation between the phonemes of speech and the grapheme of print in the English language. The deaf child is confronted with all of the phoneme/grapheme inconsistencies that the hearing child has plus the problems associated with sounds and entire words that look alike on the lips.

Our basic assumption is that given the sufficient base for language development the deaf child should be expected to develop reading skills comparable to that of his or her hearing peers. The fact that deaf children do not achieve at these levels except in certain isolated instances leads us to conclude that greater emphasis should be placed upon language development. By the time the average deaf adolescent leaves high school, he/she scores between four and five grades below his or her grade level on general tests of reading achievement. These poor reading levels are manifestations of a lack of comprehensive language skills.

Russell, Quigley, and Power (1976) discuss the limitations of traditional approaches to teaching language to deaf learners in the following manner:

> The whole structure of Fitzgerald's system is very much in keeping with the tenets of the structural linguists that words are the basic building blocks of sentences formed by a left to right combination of words into strings. Such an approach implies that sentences can be accounted for entirely in terms of their "surface structure" (the words we see or hear).

As they point out, surface structure, while it has been useful in the development of education of the deaf, has severe limitations. Their research indicated that higher levels of language functions are frequently not understood and used by 18-year-old deaf students. One example of this is the failure of 18-year-old deaf students to understand and to use passive voice. This is particularly critical when you consider that the average 4-year-old hearing child understands this language structure. From the second grade reading level onward most textbooks contain at least one passive voice sentence per page. No amount of noninteractive reading will allow the deaf child to solve this problem through reading alone. It is our feeling that prior to the understanding of the passive voice, the child must develop competence in using the active. Emphasis is placed upon interactive communication exchanges between a teacher and/or peer that appropriately uses the passive voice. This relatively minor structure may be a significant factor in the leveling off of the reading levels of deaf children at the fourth- or fifth-grade level.

The reading problems of the deaf youngster begin before he starts school and continue throughout his educational career. He is frequently able to decode the printed word at age 3 or 4. However, his vocabulary and overall language development remain far behind his or her hearing peer. This is not a factor of reading but one of delayed and inadequate English structured language development. The average deaf high school graduate does not read rapidly nor with full comprehension. Reading for the average deaf person will not be pleasurable and will not offer him an opportunity for leisure time pursuit and lifelong learning. Limited reading ability will obviously result in a limited ability to write. This failure to develop a full complement of reading and writing skills will affect not only school performance but will eventually narrow employment opportunities.

There are new techniques which offer some hope for a more expansive development of language among deaf children. These new methods blend together all communication skills into interactive relations. They open up all forms of communication, speech, auditory training, signs, fingerspelling, reading, and writing as appropriate systems to be used with deaf youngsters. As with other minority groups bilingual skills are no longer negative but positive skills to be desired. Such systems not only make for a more realistic approach to the teaching of language skills but also place a value on the deaf culture.

Visually Impaired Children

The blind child like the severely physically handicapped child has a sensory system that fosters the development of auditory symbols. They may be confined to taste, tactile, olfactory, and auditory sensations, but they develop the same symbol code (aural/oral) as the sighted infant. The ease of listening and speaking enables the blind child to share with the sighted person many common linguistic referents. The blind child has a major restriction in learning to read print. This does not mean that blind children will not learn to read large type or magnified type, but for the most part the reading of printed materials will be slow and painstaking. In addition to large-print books there are microfiche readers available with magnification lenses which allow blind children to take advantage of their residual vision. For those visually impaired persons who cannot manage to read print there are braille books available. Unfortunately, braille materials are available in greatly reduced quantities as compared to printed books and even the most accomplished braille readers do not read at rates much beyond 80 to 100 words per minute.

There are some technological advances which hold great promise for assisting the blind in reading. One currently undergoing extensive field tests is the Opticon, a space-aged machine enabling the user to scan almost any type font and turn it into raised letters for tactile reading. This machine makes almost any printed material instantaneously available to the Opticon user, from water bills to racing forms to the latest technological paper or computer printout. Even though reading requires the user to learn a new system of tactile stimuli and reading is relatively slow the immediate availability of printed materials is an advantage to the blind reader. Another exciting innovation is the Kurtzweil machine which transposes print to speech. This experimental technology, in which the reader can place a page of print into a machine and generate speech from the printed page, can operate at rates up to 160 words per minute. Another interesting feature of the machine is its ability to spell. If the reader cannot understand a computer-generated speech signal he or she can request that the machine spell the word.

The blind presently rely upon talking books and braille books as their main body of printed materials. The most frustrating limitation of such systems is the lack of available materials. There is usually a long delay between the availability of printed books and the availability of either talking books or braille editions.

The blind learner is likely to develop an excellent language base with the exception of reading printed materials. They will have good auditory memory and should be able to function normally within regular school programs if reading materials are made available to them in usable forms. Many blind children compete on an equal basis in high schools and colleges with their sighted peers. New technologies such as magnified microfiche readers, the Opticon and the Kurtzweil reading machines mean that the visually impaired children are more likely to have reading materials available to them than in the past.

Speech Impaired Children

Speech and language impaired children are frequently enrolled in regular classrooms. The speech impaired child may, like the severely physically impaired child, have an intact receptive language system. His or her writing skills may be intact; ironically they may develop better than the average student's. Because of a variety of factors the child's expressive language through speech may be seriously limited in quantity and quality. Speech impairments may vary from a relatively mild articulation problem to cleft palate, cerebral palsy, aphasia, and/or stuttering.

The most commonly associated reading problem with this child is that the speech impairment may be accompanied by a language problem. The child may have functional conversational language and he or she may appear to function reasonably well; however, as you examine the depth of his language skills he or she may have a short auditory memory span and may also lack the ability to repeat complex sentence structures. There is a tendency to repeat sentences in a simple surface structure. He or she may experience difficulty in recalling the different sounds of a single word. Such children can follow simple instructions, but get lost when asked to follow two or three stage commands such as, "Put the red book on the second shelf in the next room."

These children often represent a challenge to the regular classroom teacher. They require a complete speech and language examination by a speech pathologist as well as the services of a reading specialist. It is important to know what this student's hearing acuity and listening skills are as well as his or her speech pattern. The student may have normal acuity for hearing but be unable to repeat rhythmic patterns, distinguish among narrow ranges of sounds or attend to subtle differences in speech sounds. These children can be taught to discriminate these differences. They may require special help in learning the coding system of speech and how it relates to print. A number of programs of drill on listening tasks and recognition tasks enable them to make a sound symbol association.

The language delayed child will not have as wide a range of natural speech and language as the average child; therefore, it is important even in the upper elementary grades to continue to point out the relation between the real world and the language codes developed to represent those experiences. Most of the time these children will remain in their regular public school classrooms. They will require considerable assistance from speech and language pathologists and reading specialists working closely with the regular teacher if they are to become literate.

Mental Retardation

The retarded child, unlike the previously discussed children, has a reading problem which is based more on kind than degree. The retarded child may have intact sensory systems of hearing, vision, speech musculature, and manual dexterity. His problem is in integrating all of the various stimuli together to make a meaningful whole. This child may develop speech and language at more or less a normal rate; however, he or she may not develop the sophistication and understanding of language that his age mates do.

According to the American Association of Mental Deficiency (1973), "Mental retardation refers to significantly subaverage intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period." Mahoney and Buckhalt (1976) in commenting on this definition indicate that it "refers both to intellectual and to social behavior which are measured in relation to normative standards of behavior which are expected at successive chronological ages".

The mildly retarded child may be able to function within the regular classroom. He or she may be able to learn to read with a minimum degree of help. The more severely retarded child may not be able to learn to read beyond the level required for minimum coping with the daily needs in his or her society. The goal for the severely retarded may be the reading skills of survival, that is, a combination of reading international signs, environmental signs and forms such as drivers licenses.

As with the average child there is no one appropriate method of teaching reading to this group. Gillespie and Johnson (1974) have discussed a number of different techniques in teaching reading to the mildly retarded child. They emphasize that teaching the retarded individual to read is necessary for job success. They must be able to fill out job applications, read want ads, use telephone directories and other similar tasks if they are to function adequately on the job. Many of these individuals enter the world of work in semiskilled areas; however, even in these areas the worker is required to have a minimum reading ability.

Many of the same techniques used in remedial and developmental reading for the nonretarded are applicable to the retarded learner. Caution should be made though not to consider that the retarded child requires just a slower pace. There is evidence that the retarded child with the same mental age as a nonretarded child does not function as would be expected of learners of the same chronological and mental ages. The retarded learner may require more repetitions, may have a shorter memory span and need a higher interest level more in line with his or her chronological age.

From discussions with parents and other interested persons there is evidence that television programs such as Sesame Street and the Electric Co. are beneficial to retarded learners. The relation between sounds and letters and the ideographic relation between words and the real experience seem to be beneficial to the retarded learner. Conversely, for the more retarded individual some of the stimuli may be too complicated and the double meanings used in the entertainment aspect of the programs may be counterproductive. The current season of Sesame Street devotes some part of every Wednesday's program to the retarded. Research on previous programing of Sesame Street involving retarded children and using objectives for retarded children indicates that the retarded population attends and learns from such programing.

Learning Disabled Children

The definition of this group of children is one that is evolving both in the professional field and in the legislative process. The Education for All Handicapped Children Act, Public Law 94–142, requires that the U.S. Office of Education develop a definition of this handicapping condition. The Bureau of Education for the Handicapped is in the process of developing such a definition for the purposes of the law. For this paper we are choosing to use a functional definition which has been used in recent years. Chalfant and Foster (1976) reiterate that definition as:

> The term "specific learning disabilities" refers to a disfunction in one or more psychological process upon which learning is based. Children with specific learning disabilities may have difficulty analyzing what they see, hear, or touch; integrating sensory information received through two or more sensory channels; storing and/or retrieving information for later use; forming concepts; and problem solving. Because these children have difficulty processing sensory information, they often experience failure in symbolic operations, such as learning receptive and/or expressive language, reading, writing, arithmetic computation, and visual-motor performance activities.

Many of these children function within their everyday world much as their peers do. They may have specific interests that they excel in. Their general problems begin to be observed when they are called upon to perform the tasks of the school, to associate the knowledge they have of the world with the formal reading, writing, and computation systems expected of all learners within the school. They have difficulty in associating all of their sensory input into a synergetic whole. In some instances the use of more than one sense modality seems to confuse them and becomes a barrier to learning. Unisensory approaches have been developed for some of these children so that they can isolate stimuli and make appropriate associations which are common for most children. For example, the association of sounds to letters should be carefully timed and presented in stimuli that do not have extraneous signals. The Electric Co.'s presentation of a person saying a single sound and the grapheme coming out of the mouth of the speaker may be meaningful to these children since it provides a direct relation of the speech sound to the printed letter. It is possible for some learning disabled children to have learned to do the above-mentioned exercise without recognizing the word as meaningful unless it is associated with the object or the action.

The learning disabled population is diverse and no single method of reading instruction is likely to be appropriate for all such children. Perhaps the most common problem facing all handicapped children is that their perceptions of the world are shaped by the handicapping condition, resulting in a different cast of experiences from the person with intact sensory and motor abilities. As a consequence, their language references will be altered from those of the average individual. It should be remembered that we all bring to our language base individual meanings which interfere with communication and the sharing of real and various experiences. The learning disabled child is frequently at a special disadvantage. For all observable appearances he or she may seem to be coping with the world relatively well. It is only when one looks at academic symbolic activities that the problems become apparent. Such children may have problems in memory, discrimination, sensory integration, concept formation, and problem solving.

The Future and the Handicapped Learner

There are a number of optimistic signs for the handicapped learner. One of the most significant is the Education for All Handicapped Children Act of 1975. This act guarantees that all handicapped children will receive a free and appropriate public education within the least restrictive alternative educational program. This means that many mildly-to-moderately handicapped children will be educated within their home communities in their neighborhood schools. Under this law each handicapped child must have an individualized educational program. The requirement for individual educational programs means that diagnostic and assessment procedure must be established. Annual assessments must be made of the child's development and progress toward established goals. Such activities may stimulate the development of more comprehensive assessment instruments enabling educational managers to provide better human and material resources. When a child is not learning in a given educational placement or under a given educational technique, changes will be made in his or her educational program.

The principles in the law set up check points to see that the child develops the basic skills required to cope with the educational system. Once these basic skills are developed specific long-term goals are established for the child's education. To these writers basic skills means the establishment of language skills in listening, speaking, reading, and writing.

The availability of materials and programs in both language development and reading are extensive and growing. Some materials, i.e., the basic reading programs on computer assisted instruction, have the potential for becoming completely self-instructional. Some systems allow the coursewriter to associate auditory, graphic, and tactile interactions with the machine and the learner based upon the learner's previous input.

Television is influential on handicapped children. Sesame Street, the Electric Co., Zoom, and MISTEROGERS' Neighborhood are programs often viewed by handicapped children. To many handicapped children they are a positive learning experience leading to prereading and reading skills. There are efforts on Sesame Street, MISTEROGERS' Neighborhood, and Zoom to include handicapped children as a part of the regular target audience and as participants on the programs. Linda Bove, a deaf actress, is a resident of Sesame Street. Mr. Rogers has had many handicapped guests on his show and Zoom has also had handicapped guests. These appearances help the non-handicapped child understand and accept handicapped classmates and it also presents positive identity for the handicapped child. Vision On is a British Broadcasting Company program that is currently available in this country. It is a nonverbal program developed for the deaf and designed to stimulate creative art. Currently on public television there are at least 5 hours a week of captioned television for the deaf. This is being used by other populations as a supplement to reading. It is likely that additional programs will be available in captioned formats.

There is another promising development. Linguists are becoming interested in various handicapped populations and bodies of knowledge are being augmented concerning language development in the deaf, the retarded, the autistic and other handicapped groups. Initial efforts are being made to apply this linguistic knowledge to the learning processes of handicapped children.

Teacher Training

The new Education for All Handicapped Children Act is only one of many forces that require changes in professional preparation. An information rich society with its mass media and worldwide coverage of events dictates a new and different role for all teachers, especially those who work with handicapped learners. Both the regular classroom teacher and the special educator will be educational managers who have the ability to select and use both human and material resources to meet the objectives established for their learners. Schools will be required to make available for all staff members opportunities for professional growth on lifelong bases.

All teachers should have an extensive knowledge of semantics, language development, linguistics, speech development, and reading if they are to work with young children. Continuing educational experiences must be made available to classroom teachers. Such programs should take advantage of formal coursework, staff seminars, and the use of packaged learning experiences. Audio cassettes, video cassettes, books, and computer assisted instruction are all methods which should be used in providing this type of education.

Teachers should have educational hotlines that they can call for information and counseling with specific educational problems with handicapped learners. Such a service should help them locate assistance in working out specific problems with specific learners and provide information about sources of materials. These types of services and continuing education should be a built-in aspect of employment funded and supported by the school systems.

There are some developers of professional preparation who are moving into these areas. The Great Plains Television Library has recently made available a series of programs entitled "Characteristics of Learning Disabilities." This is a multimedia course developed by Gerald Wallace at the University of Virginia.

The surplus of teachers in the next decade will result in greater demand for continued professional growth on the part of employed teachers. The factors which will influence such moves are (1) public demands for accountability in education, and (2) demands for individual children to have individualized educational programs. Teachers will formalize their assessment and planning processes. While teaching will remain a humanistic art it will also move towards a more scientific base.

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CHAPTER XI—SUMMARY

It is evident that gifted readers are often neglected. Few programs meet their needs and their development is often retarded. Identification needs to be brought about by means other than intelligence tests alone. Achievement tests in reading are seldom helpful in developing a program. Skills development not just informational accretion is important. There must be an ongoing evaluation of the gifted reader.

Changes in programs are necessary. More emphasis should be placed on the content areas of the program while fostering growth in the cognitive skills. In many cases reading instruction through the use of content materials should supplement conventional basal reading instruction. Attempts should be made to capitalize on the interests of these talented children but a decided effort should be made to broaden their interests. With the use of content materials of various types changes in pedagogical procedures would be a necessity. Block scheduling and team teaching need to be developed. With such a system determining and meeting needs becomes easier.

Parents need to be informed about giftedness and their children's progress. Reports should clearly state the progress in behavioral terms so that they understand the varied systems a child must master. Parent education is probably best done in group situations with clear g[illegible] If these children are to be helped they cannot be forgotten.

CHAPTER XI

Reading and the Gifted

by Paul R. Daniels
Professor of Education
Johns Hopkins University
Baltimore, Md.

Introduction

As in any discussion or evaluation of a particular segment of the human population, the definition of that particular segment takes on an overriding importance. Without agreements about the definition, discussion of the delimited population becomes meaningless. It is often such a disagreement of terms that arouses greater controversy without fostering understanding.

The term, gifted, is such a term.

Historically the term once meant a specific IQ score on a reputable intelligence test. The score might be 130 or 140, but it was usually a rather definitive cut score. Behavioral scientists knew that these were arbitrary cut scores, but schools continued and still continue to use such arbitrary figures.

In an attempt to bring order into the understandings about "gifted" children the Subcommittee on Education of the Committee on Labor and Public Welfare of the U.S. Senate authorized a report on "Education of the Gifted and Talented." That study was planned, coordinated and directed by the Office of the Deputy Commissioner for Development of the Office of Education.

The advisory panel established the following definition:

Gifted and talented children are those identified by qualified persons as having outstanding abilities and being capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. general intellectual ability;
2. specific academic aptitude;
3. creative or productive thinking;
4. leadership ability;
5. visual and performing arts;
6. psychomotor ability.

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5 percent of the school population.

Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which are essential components of identification.

Professionally qualified persons include such individuals as teachers, administrators, school psychologists, counselors, curriculum specialists, artists, musicians, and others with special training who are also qualified to appraise pupils' special competencies.

The above definition of course now eliminates the rigid fixed determination of giftedness by IQ scores. This same view is also reflected by Schubert in his dictionary of reading terms and concepts. The definition of gifted is as follows: "GIFTED—talented"; having an IQ of 140 and up; individuals demonstrating an outstanding ability in a worthwhile type of endeavor.

It is now evident that those social scientists specializing in giftedness now recognize factors other than measured intelligence. This now makes it possible to talk of gifted children who are not gifted readers and gifted readers who are not gifted children.

This paper will be directed toward that group of children who are talented and show an outstanding ability in reading accomplishment. Their number is vague. However, the 3 to 5 percent noted in the Senate report might be considered low when one ponders how many potentially talented readers are retarded by instructional and curricular practices that do not meet their needs.

In the last 5 years research in the reading ability and needs of the gifted has been minimal. What has been done seems to provide no direction. If research is going to be undertaken, it is obvious that a concensus must be arrived at on the terms; there will need to be a resolution of the differences between gifted child and gifted reader; and a way will have to be found to evaluate those children who are potentially gifted in reading but have been stifled by regimented instruction and programs.

Dr. Gilbert B. Schiffman of the Johns Hopkins University has a presentation about "Putting a Lid on Kids." In the case of the gifted reader this is more often the case than not. In a recent survey conducted by a reading specialist, it was found that in 22 elementary schools, only 2 percent of the children were receiving instruction above grade level. From a statistical standpoint this is difficult to reconcile. From a humanitarian standpoint it would be difficult to justify.

In summary, giftedness may mean intellectual capacity or special talent or ability but at this time research has not provided enough definitive information to develop valid standards. If gifted children are to be identified and their needs met, which is only just, then each school system might have to begin the task within itself.

Goals

How is the gifted or accelerated child to be identified? As noted earlier, historically a basic IQ score was the element that distinguished a gifted individual from the average or normal human being. Since IQ is now recognized as a conglomerate of factors, this technique is not regarded in high favor. The emphasis is now being placed on exceptional competency in any area, as noted earlier.

The controversy in determining giftedness in reading persists, however. Many children are determined to be gifted in reading as other children are labeled remedial. Dr. Lynn Fox of the Intellectually Gifted Child Study Group of the Johns Hopkins University Evening College feels that most schools determine giftedness on the basis of whether or not a child scores more than 2 years above grade level in a reading test. How reminiscent of determining excessive retardation.

At this point, it might be advantageous to look at the gifted from competency-based criteria. Can the child *perform* the more advanced communication techniques in comprehension, vocabulary, and organization? Is the child capable of obtaining data and then transmitting it to others?

It would be advantageous for a school district that is interested in evaluating their children for giftedness or talent to develop screening devices for themselves. This will require a search of the literature and research, the use of consultants and a few dedicated staff members to lead the task force and formulate the instruments. It is a task worthy of effort.

The program for the gifted, and it might be hoped for all children, should demonstrate variety and flexibility rather than the routine often developed when curriculum guides and teachers' manuals become dogma. There is a definite need for these gifted children to enter into a more definitive content approach than is conventionally provided. Too frequently the child's entire reading program is based on literary or affective type materials. Most children receive little instruction in reading content or cognitive materials. The emphasis in the program for the gifted needs to be focused more and more on the cognitive.

Juliana Gensley in the *Gifted Child Quarterly* has stated that reading for the gifted should be a *process* of gathering, interpreting, processing, analyzing, synthesizing, evaluating, and using *information.* How different from most school programs in which the emphasis is on storytelling, chronological sequence and appreciation of character. There is no attempt here to denigrate affective factors but there must surely be an entire realm of cognitive skills that children should acquire.

However, for those school systems that feel the need to stay with a normative structure rather than with developmental skill sequences, Dr. Walter B. Barbe, Adjunct Professor at the Ohio State University, has a graded skills list which could be used for a grade level skills evaluation. It should be noted that both criterion reference inventories and graded skills checklists will often reflect the instructional program provided. If there has been little individualization of instruction, then one would have to assume that the individual may not have grown to his potential.

One idea repeats again and again. How can a gifted reader develop his gifts if he is stymied by instruction? How then can a school district or classroom teacher peer through this obscured window to see the talented child behind it?

Another aspect of evaluation for the gifted is the use and value of standardized measures of reading achievement. For nearly all cases, standardized testing programs are based on grade level placement. Many of your better readers often operate at the top of such tests where there is often a question of reliability. However, the scores are often accepted at face value. This leads to a more disastrous consequence when the grade level achievement score is extrapolated into a reader level placement. The disaster occurs when one of two consequences is decided upon: (1) the child receives instruction at the level and is beyond his capabilities, or (2) the youngster is considered to be so successful that for all intents and purposes there is no instruction provided.

When this latter situation occurs, an "enrichment program" is often suggested. Too frequently this program implies horizontal experiences rather than vertical growth experiences. Intrinsically, as will be noted later, enrichment is a vitally important factor. Too frequently it appears to be a way of "putting lids on kids." In a large number of instances this author has been told by a principal or reading supervisor that a group of children cannot be permitted to receive above grade level instruction because "What would the teacher do next year?"

This type of thinking and operating must surely have negative effects on the potential growth of a gifted reader.

In summary the goals for the gifted appear to cluster around three main concerns:

1. The recognition and acceptance of the gifted reader and the means to accomplish this task.

2. An instructional program with the variety and degree of individualization of instruction that will meet the needs of the gifted reader.

3. Evaluation techniques and instruments that ensure a proper balance of vertical as well as horizontal growth for the achieving student.

Programs

If the school or school system is to meet the needs of all children but especially the accelerated learner some basic problems have to be faced. Specifically the reliance on grade level criteria for achievement and reader level instruction programs must be questioned.

Too frequently, the gifted or the talented child brings to the instructional situation the necessary ideas, vocabulary and skills that the teacher plans to develop through instruction. In such a situation, the child has only a number of recourses. The child can become apathetic and be accused of disinterest, or the child can begin to act out and be accused of being disruptive, or the child can become an overactive contributor and be accused of being a show-off or a spoilsport for the rest of the children. In reality a diagnostic/prescriptive program would not force the gifted into such behavior. If the goals for these accelerated learners listed earlier were sought after, the negative behavior would seldom arise. These children will respond to information processing skills development if it is presented.

The same criticism can be leveled at specific reading programs. Too frequently, the grade level designation becomes the upper limit of the instructional program in reading. The child who is operating with skills and competencies beyond grade level is often forced into programs that allow no stimulation or progress. Many teachers and parents are confused when the successful learner exhibits negative behavior in a situation where he is not seemingly frustrated. However, the child is often frustrated not by the level of the material but by the factors noted above. The accelerated learner often needs the challenge of ideas and skills, not simply the mastery.

Today in many school systems instruction is to be based on management procedures. In and of itself this appears to be a basically sound approach. However, for the gifted child it can often cause problems, especially in the primary grades. Many young children come to school "reading" already. However, this ability must be evaluated. Often this type of reading is nothing more than word calling ability developed by an overanxious parent. In many cases these children are not gifted or talented. Many children who do read well learn early the process itself. In management oriented programs they often suffer.

Gifted early readers usually know the processes; they have mastered the concepts. They have not mastered the vocabulary. In many school districts, there is no distinction made between reading and reading instruction; therefore, a child who reads but does not know the jargon of reading instruction is often forced to stifle his abilities, skills, and interests in order to master verbiage for which he has no need. Teachers often see the results on criterion reference inventories in such cases and base the child's instructional program on the results. In this respect they are, of course, living up to the administrative demands for having teaching objectives. Once again, the gifted child pays a price for adult inflexibility.

Many school districts do recognize the gifted reader and attempt to differentiate the program. This differentiation, however, is often not instructional. Enrichment programs are developed. For the gifted enrichment should take a number of forms. The form most prominently seen is usually based on creative activities or "creativity." This is of value to the child whose abilities are more centered around expressive or artistic abilities. There should be a place for the child who has other intense interests. This type of child should be encouraged to master a specialty if he so desires. Other children should be allowed to pursue areas which are more catholic—science, history, biography, etc. Enrichment activities can be quite catholic themselves when children are encouraged to evaluate many facets of a given area. Finally, enrichment should help a child by increasing his interest areas and having him become acquainted with more of the world than is readily apparent at any one time. The school does have a responsibility to broaden all children's views, but especially with a gifted or talented child the school should undertake programs that foster new interests rather than simply using those interests already recognized in the child. There is another aspect of the enrichment controversy that must be examined. Many children are able to move through rather limited and narrowly conceived reading programs rather rapidly. They are able to move from level to level with good speed. However, their growth is nearly always narrow and thin and very vertical. In many cases parents, teachers, and administrators are pleased with such obvious growth but fail to realize its fundamental narrowness. Such children are usually pushed on and on into upper levels. It soon becomes apparent to an objective observer that such growth will usually fall over under its own weight into lack of success in many other areas. This type of child needs an enrichment program, a program which expands the learning horizontally; where all facets of the reading process are evaluated and instruction provided in areas of more limited success. These children are often the chief sufferers of our grade level-reader level instructional programs.

To meet the reading needs of the gifted reader, it is suggested that the major emphasis in the instructional program should be placed on content reading. The interests of the children should be used and other interests fostered.

Effective materials can be used to humanize the content, but used in two ways. Some literacy materials could be used for direct instruction but other materials could be used through the listening realm. Teachers could read to the children those materials beyond their reading ability but within their listening ability. It is important for many of these children, and for all children, that the social interaction of "storytelling" be brought into their lives.

A major objection to content instruction is the lack of appropriate materials. This once again reflects a need to develop in teachers an understanding of varied pedagogical approaches. For the beginning reader at all stages of competency, a language experience approach could be used to develop a sight vocabulary and the resultant skills. These charts could be of a cognitive nature as well as story forms. Children could learn about plant growth, fish care, light refraction, etc., and still acquire mechanical reading skills. As progress is made, adult prepared materials, made by volunteers, and/or teachers can be developed and used for instruction. As further progress is seen, commercial materials that are appropriate could be used and, finally, as mastery is approached, research methodology using reference materials and textbooks can be employed. This type of instruction is possible but teachers will have to be enlightened and trained.

School programs in all areas need to be redesigned to meet the needs of all children. One of the most difficult factors in classroom teaching is facing the ranges of achievement demonstrated by children. As the children become older the ranges obviously increase.

The problem of wide ranges often forces teachers to limit the growth of the talented readers and place them in "enrichment" programs which accomplish little. One of the most difficult factors in teaching under present classroom procedures is the presence of one or two gifted or retarded readers in a class.

This problem could be solved if team-teaching or even cooperative teaching was encouraged or in fact mandated. Those two or three children from various classes on grade level or in contiguous grades could be grouped for instructional purposes. This of course means that multiage groups would be developed. This age problem appears to be more of an adult problem than a child problem.

Curricular changes also would be required. The teacher(s) of the talented readers should have the right and the responsibility to work changes in curricular goals for these children. There should be the continued emphasis on the physical and social sciences, safety, health, education, etc., but certain specifics might be changed. The children in a grade level might be expected to deal with light but the gifted children might investigate in detail certain aspects that are beyond the other children's understanding. The need for curricular variability in degree as well as kind is vitally important for a successful program for the gifted.

The school programs should allow for direct involvement of the gifted children. What are their interests? What are their needs? How do they go about organizing parts of their programs? In such a situation children could begin to investigate interest or content areas individually, and they could also begin to channel enthusiasm in more mature patterns of behavior by sharing responsibilities for a group activity even when it is not of an overriding interest at the time. Such curricular change could help the child understand the pleasure-pain principle as a necessary adjustment to life.

It is important for the gifted child to face materials that require different reading skills. It is suggested that such a program would require work in:

1. Social Sciences:
    - (a) American Heritage
    - (b) World Cultures
    - (c) Current Problems
2. Science:
    - (a) Biological Science
    - (b) Physical Science
    - (c) Earth Science
3. Health Units
4. Safety Units

Within these areas, freedom of choice concerning interests could be allowed. It would also mean that a child would have to deal with content materials that present educational challenges and demands about which he/she had given little thought or attention.

To meet the particular needs of gifted readers the curriculum must, indeed, be modified. This modification has its great ramifications, however, in the organization of the classroom. More emphasis needs to be placed on needs grouping. It is almost asking the impossible of teachers to provide diagnostic/prescriptive education when children are grouped on an achievement basis. Teachers need the ability to determine children's needs and group them in this respect for instruction. There are dangers in this procedure. However, as long as the reading process in its entirety is understood although the mastery of specifics in the process is emphasized, the dangers are of little consequence. It is possible that a "short a" group could develop but that is already happening in many areas where management is stressed. It would also seem sensible that when teachers are helped to understand the depth and scope of all the skills that comprise reading ability, that emphasis on narrow factors in one area could not be accepted as worthwhile goals by such teachers.

Scheduling of academic teachers becomes the next element that needs revision. If team or cooperative teaching is to be employed then the teacher group will have to have schedules that permit them to operate with larger groups of children rather than groups of classroom size.

If three or four teachers were given a 2-hour communication block in which there were no interruptions for some children going to chorus, physical education, etc., then teachers could team and the group of gifted children could have an instructional program as do the rest of the students.

Within the communication block, the gifted readers could meet with a teacher for instructional purposes. At other times, they could use the time for independent projects but still within the allotted time. Extra time could be allotted during the day but the gifted child would be guaranteed a fair share of instructional time.

In many of the writings about gifted learners, it is suggested that they be provided with different types of activities. It is proposed that they have special classes, seminars, student internships, research field trips, independent study, etc. These activities should not be just for the gifted. However, when these activities are provided for the gifted child the activities are almost always content centered, enriching, broadening, etc. As noted earlier these factors are important; however, you will seldom see these activities having the function of skill development and improvement.

Special groups could be oriented toward appreciating the inconsistencies in printed informational materials, or the recognition of style factors in writing. A seminar on politics could also require the recognition and understanding of propaganda techniques in oral and written presentations. An internship could require intense research efforts and material evaluations. These special activities, especially for the gifted, should enhance learning but also enhance communication skills. This striving for improvement in skills should be as deliberately planned and stressed as the curricular components.

Certain cautions must be recognized. If the gifted learner is going to be in a resource room program it is important that the program does not bring social or psychological stigma as it has done so often with children who are not achieving. The child should not be allowed to become smug and condescending either. In many respects the removal of the gifted child, or any child from his peers for instruction requires the adults in the child's life to be especially alert to possible unfavorable attitudes and behaviors. If such a program is based on specific talents rather than broad descriptive labels then the chance for negative developments is markedly diminished.

It is also apparent that the actual teaching procedures need to be reevaluated. From the recent National Assessment of Educational Progress, it was noted that the percentage of correct responses for literal comprehension for 9-year-olds was 66 percent, or a 2 percent increase. This would seem to reflect the intensified effort on individual word attack skills. However, in the same report, it was noted that percentage of success for 9-year-olds with inferential thinking was only 37 percent, a decline of 6 percent. Interestingly, the report noted that the children had much more difficulty drawing inferences within a passage than from a whole passage. This would seem to further highlight the methodology of "reading the whole thing first" as a way of making reading *not* a problem solving technique.

It is of extreme importance that the teacher of the gifted reader not be seduced into misinterpretations by word calling and literal comprehension skills. The most important new acquisition for teachers of talented readers is to develop skills in questioning. Children must be challenged to recognize and reorganize data beyond the literal level.

Any program for talented readers that does not have as a major component parent education and parent involvement seems doomed to fail. The child will suffer when there is disharmony or lack of understanding or goals in the two vital factors of his early life—the home and school.

Parents must be acquainted with the school's interpretation of gifted or accelerated readers. Two distinct groups of parents emerge. One is that group who have decided that their children are gifted; the second is those parents who should be informed of the decision. In many cases the "knowing" parents need to have it clearly stated that the program is designed for the child's benefit. Too frequently acceleration in reading is viewed as a social plus and this status symbol becomes more important than the child's welfare. Recently, a principal and a first-grade teacher were verbally abused by a parent and accused of "destroying our lives" because they felt an accelerated reader should move from the kindergarten to first grade rather than move immediately to second grade. It was obvious that the child was happy and receiving appropriate instruction in first grade. Yet the parent insisted that the child be "pushed harder." This is often the best way to make a child who is performing at an excellent level and pace rebel and become a poor or mediocre performer. Parental pressure needs to be dealt with on a direct level.

The "unknowing" parent needs to be apprised of the child's ability and suggestions made for capitalizing on it. They should be congratulated for their restraint and sensitivity.

To meet both parent needs, parent education sessions should be conducted in groups rather than attempting it on an individual level. The "knowing" parents should begin to understand that their child is not totally unique and that other gifted readers have other talents and needs. It is in the area of other developmental needs of gifted readers that the school must place its emphasis in parent education. These parents must be helped to see that total emphasis on success in one process area does not ensure "family happiness." They must understand that simple word calling ability is not accelerated progress and that continued emphasis on this one skill can lead to the development of a classic verbalizer who will eventually meet demands beyond word calling and be faced with unexpected and unanticipated failure. This type of failure can be especially debilitating to any human being.

In reporting to parents, standardized measures of achievement can be distorting or useful. They can be distorting if strict grade level administration is used and parents do not understand the lack of reliability of most standardized tests when scores occur at the tails of the distribution. If standardized tests are administered to the children that permit their present ability to approach the mean of the test a more honest measure is obtained and pretest to posttest evaluations become more realistic.

Standardized measures need to be buttressed by criterion referenced inventories to put into a more realistic perspective the actual process achievements of the child. Both of these measures should be tempered by subjective evaluations concerning degrees and type of application, interest areas and ongoing attitudinal changes, if any. This complex of measures is quite necessary to ensure that the child is neither overwhelmed nor understimulated by the instructional program.

Parent education programs must emphasize the various educational processes that children must be successful with if real progress is to be made. Parents of the gifted child must be informed about the need for competencies in word recognition, general comprehension, organization skill, and vocabulary development as well as word analysis skills. They need to know where in these reading subsystems the child fits and what his needs are. A clearcut picture of the child's total developmental profile using subjective as well as objective measures must be made available.

Generally, the conventional report card will provide little information for the parent of the gifted child. Unless the talent is very specific in nature, these children, on the whole, will do well in most areas reported. If the school could provide report cards based on criterion referenced data on which the evaluation is rated on a continuum then a more honest picture of progress and need could be shown. Simple forms for weekly reporting could be developed that require daily progress reporting and evaluation by the child. This short report could then be augmented or verified by the teacher so that a system of almost continuous monitoring of development is provided.

Finally, the parent education program must provide fundamental understanding about enrichment programs. Parents must be helped to understand that horizontal development through elaboration of concepts and ideas is just as important as the accumulation of new ideas. They must be helped to recognize that sophistication in as many areas as possible is more important than total saturation in one area. It is the broadening of the child's background that will permit the child to make more reasonable choices later in life.

It is the ultimate responsibility of the school, however, to justify an enrichment program. There should be no way for a parent to perceive such a program as a means of retarding a child's progress. They must not be able to view enrichment as simply a "Holding yard" for children to prepare them for the next teacher. It is the school's responsibility to guarantee that the enrichment program is designed for the children. It is a matter of professional ethics that must be faced.

In summary, the program for the gifted reader needs to recognize the limitations of instructional programs based on grade level and reader level. Needs evaluation and subsequent needs grouping for instruction should be developed along with an integrated interest or content approach to learning goals. Varied pedagogies must be available including language experience, textbook instruction, etc. New classroom arrangements, block scheduling, and team teaching will allow teachers to meet the needs of all children especially the gifted. Within the above adjustments, different types of activities can be made available. Seminars, internships, independent research projects, etc., can then be integrated into the normal academic day. Parents need to be helped to understand the scope of the communication process and the variety of skills that require mastery. They must be kept informed of progress, problems and plateaus. This can only be done through a different and augmented reporting program. Finally, the concept of enrichment must be clarified and its use justified. All modifications and adjustments must have one goal in mind—overall positive child development as an individual.

Inservice Education

So frequently the emphasis in preservice and inservice education of teachers is placed on the problem child, especially the problem reader. Probably this is justified. What is not justified, however, is an almost denial reaction of the learning needs of the achieving reader. As was noted earlier, there continues to be for many children a grade level lid placed on their possible progress.

Since the number of gifted readers is not large it is probably sound economics and planning to limit any intensive inservice to a limited number of teachers. All teachers, however, should have an overall exposure to the evaluation of and possible programs for the achieving reader.

If earlier suggestions concerning staffing could be followed, then a limited number of teachers could receive intensive training. The choice of these teachers is crucial. This choice should not be based on two criteria commonly used: (1) Inability to deal with a range of children, or (2) "I prefer to work with the better students." The teachers selected should be chosen on the basis of a number of qualities: (1) flexibility, (2) sensitivity to needs, (3) adaptability, and (4) skill in varied pedagogical techniques. The most important of these criteria must be those involved with personality factors. Teachers can be taught methodologies; personality traits concerning children tend to be less easily altered.

The training of the teachers to meet the needs of the accelerated reader must be based on a philosophy which all the teachers can accept. They must also have a strong understanding of the psychological needs of these children and the possible influences on and from the family. Finally, they must be introduced to varied instructional practices that will permit them to be flexible in meeting the needs of these children.

Consultants, either at the college level or local school level, should be brought to these teachers to develop the necessary procedures. However, the most important consultant is often a fellow teacher who has demonstrated success with this type of child. In any inservice program careful consideration should always be placed on using peers in some capacity.

It is important that this training not always be after school, Saturdays, or summer workshops. These opportunities should be a part of the program but the really pronounced changes will come about when consultants meet with teachers during the day and work in the classroom. There is a real need to demonstrate procedures and then have time immediately afterwards for discussion and critique. There is an implicit statement of good faith and concern when the school administration indicates that it can find ways to allow teachers to facilitate a program on schooltime. Too often teachers do not see this concern when they are expected to give much and the administration little.

Appropriate funding must be provided by the local school districts. Reimbursement for developing expertise in a limited area to provide services to a limited group must be made. College and university work should be required but financed. Some part of this financial support could carry with it a requirement to provide dissemination.

The local inservice and university level training eventually should lead to the recognition of an "in-house" consultant. More and more services could then be rendered from a staff member to a staff member. In this way a larger degree of self-sufficiency is developed and better and more rapid rendering of necessary services becomes possible for the talented reader.

Summary

It is clearly evident that in far too many school districts the gifted or the talented readers are neglected. There are few programs designed to meet their needs and in some instances retardation of skills development actually occurs.

There must be a concerted effort to identify the talented reader by means other than intelligence tests. It is obvious that giftedness in most cases is not totally global. Reliance on standardized measures of achievement often give a distorted view of the learner and his needs.

Instructional programs need to be adjusted in curriculum and skills. Upper level communication skills must be included in all programs. The simple accretion of knowledge is not enough. The school must have a varied ongoing evaluation program to ascertain if the needs of the gifted learner are being met.

Changes in programs are necessary. More emphasis should be placed on the content areas of the program while fostering growth in the cognitive skills. In many cases reading instruction through the use of content materials should supplement conventional basal reading instruction. Attempts should be made to capitalize on the interests of these talented children but a decided effort should be made to broaden their interests. With the use of content materials of various types changes in pedagogical procedures would be a necessity.

The school and classroom should be organized to permit block scheduling and team teaching. With such an organization one or two teachers could be expected to deal with the needs of multiage instructional groups based on needs. Much effort must be placed on determining needs and providing instruction to satisfy the needs.

Parents must be kept informed both in appreciating the gifted reader and understanding the limitations. Reporting systems should be changed to reflect the approach to needs satisfaction. Simple weekly reports could be employed so that parents are always kept abreast of the current status. Parent education must be a major part of a gifted reader program so that an honest perspective is maintained. Parents should not require too much but should know what to expect. Group meetings will probably help those parents who are too demanding to modify their demands to reasonable levels.

Inservice education of teachers is almost always a must. Formal training and inservice education programs at the school and in the classroom should be provided with the hope that the local school system would always have someone available to help other teachers meet the needs of the gifted reader.

Projections

It can be hoped that as the educational system moves through its cyclical changes the gifted reader and learner will again receive the necessary attention. Fortunately, the needs of the gifted children can be met without a large outlay of funds. If schools can begin to change the prescribed grade level and reader level instruction, reorganize the regimented classroom and encourage teachers to team their talents then the needs of all children will be better met. If these changes do not come about, the instructional program and progress for the gifted will continue to be as stifling and stifled as it is today.

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